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# Astrophysics and Image Processing

**Eulaers, E, & Magain, P.** (2011). Time delays for 11 gravitationally lensed quasars revisited. *Astronomy and Astrophysics*, 536.

<http://hdl.handle.net/2268/110759>

**Gillon, M**, Doyle, A. P, Lendl, M, Maxted, P. F. L, Triaud, A. H. M. J, Anderson, D. R, Barros, S. C. C, Bento, J, Collier-Cameron, A, Enoch, B, Faedi, F, Hellier, C, **Jehin, E**, **Magain, P**, Montalban Iglesias, J, Pepe, F, Pollacco, D, Queloz, D, Smalley, B, Segransan, D, Smith, A. M. S, Southworth, J, Udry, S, West, R. G, & Wheatley, P. J. (2011). WASP-50 b: a hot Jupiter transiting a moderately active solar-type star. *Astronomy and Astrophysics*, 533, 88.

<http://hdl.handle.net/2268/104300>

Anderson, D. R, Barros, S. C. C, Boisse, I, Bouchy, F, Collier Cameron, A, Faedi, F, Hebrard, G, Hellier, C, Lendl, M, Moutou, C, Pollacco, D, Santerne, A, Smalley, B, Smith, A. M. S, Todd, I, Triaud, A. H. M. J, West, R. G, Wheatley, P. J, Bento, J, Enoch, B, **Gillon, M**, Maxted, P. F. L, McCormac, J, Queloz, D, Simpson, E. K, & Skillen, I. (2011). WASP-40b: Independent Discovery of the 0.6 M Transiting Exoplanet HAT-P-27b. *Publications of the Astronomical Society of the Pacific [=PASP]*, 123, 555-560.

<http://hdl.handle.net/2268/95418>

Anderson, D. R, Collier Cameron, A, **Gillon, M**, Hellier, C, **Jehin, E**, Lendl, M, Queloz, D, Smalley, B, Triaud, A. H. M. J, & Vanhuysse, M. (2011). Spin-orbit measurements and refined parameters for the exoplanet systems WASP-22 and WASP-26. *Astronomy and Astrophysics*, 534, 16.

<http://hdl.handle.net/2268/95416>

Anderson, D. R, Collier Cameron, A, Hellier, C, Lendl, M, Lister, T. A, Maxted, P. F. L, Queloz, D, Smalley, B, Smith, A. M. S, Triaud, A. H. M. J, West, R. G, Brown, D. J. A, **Gillon, M**, Pepe, F, Pollacco, D, Segransan, D, Street, R. A, & Udry, S. (2011). WASP-31b: a low-density planet transiting a late-F-type star. *Astronomy and Astrophysics*, 531, 60.

<http://hdl.handle.net/2268/95263>

Anderson, D. R, Smith, A. M. S, **Lanotte, A**, Barman, T. S, Campo, C. J, Collier Cameron, A, **Gillon, M**, Harrington, J, Hellier, C, Maxted, P. F. L, Queloz, D, Triaud, A. H. M. J, & Wheatley, P. J. (2011). Thermal emission at 4.5 and 8 micron of WASP-17b, an extremely large planet in a slightly eccentric orbit. *Monthly Notices of the Royal Astronomical Society*, 416(3), 2108-2122.

<http://hdl.handle.net/2268/95426>

Bonfils, X, **Gillon, M**, Forveille, T, Delfosse, X, Deming, D, Demory, B.-O, Lovis, C, Mayor, M, Neves, V, Perrier, C, Santos, N. C, Seager, S, Udry, S, Boisse, I, & Bonnefoy, M. (2011). A short-period super-Earth orbiting the M2.5 dwarf GJ 3634. Detection with HARPS velocimetry and transit search with Spitzer photometry. *Astronomy and Astrophysics*, 528, 111.

<http://hdl.handle.net/2268/95424>

Bouchy, F, Deleuil, M, Guillot, T, Aigrain, S, Carone, L, Cochran, W. D, Almenara, J. M, Alonso, R, Auvergne, M, Baglin, A, Barge, P, Bonomo, A. S, Bordé, P, Csizmadia, S, de Bondt, K, Deeg, H. J, Díaz, R. F, Dvorak, R, Endl, M, Erikson, A, Ferraz-Mello, S, Fridlund, M, Gandolfi, D, Gazzano, J. C, Gibson, N, **Gillon, M**, Guenther, E, Hatzes, A, Havel, M, Hébrard, G, Jordá, L, Léger, A, Lovis, C, Llebaria, A, Lammer, H, MacQueen, P. J, Mazeh, T, Moutou, C, Ofir, A, Ollivier, M, Parviainen, H, Pätzold, M, Queloz, D, Rauer, H, Rouan, D, Santerne, A, Schneider, J, Tingley, B, & Wuchterl, G. (2011). Transiting exoplanets from the CoRoT space mission. XV. CoRoT-15b: a brown-dwarf transiting companion. *Astronomy and Astrophysics*, 525, 68.

<http://hdl.handle.net/2268/95259>

Courbin, F, **Chantry, V**, Revaz, Y, Sluse, D, Faure, C, Tewes, M, **Eulaers, E**, Koleva, M, Asfandiyarov, I, Dye, S, **Magain, P**, van Winckel, H, Coles, J, Saha, P, Ibrahimov, M, & Meylan, G. (2011). COSMOGRAIL: the COSmological MONitoring of GRAVItational Lenses. IX. Time delays, lens dynamics and baryonic fraction in HE 0435-1223. *Astronomy and Astrophysics*, 536, 53.

<http://hdl.handle.net/2268/74288>

Csizmadia, S, Moutou, C, Deleuil, M, Cabrera, J, Fridlund, M, Gandolfi, D, Aigrain, S, Alonso, R, Almenara, J.-M, Auvergne, M, Baglin, A, Barge, P, Bonomo, A. S, Bordé, P, Bouchy, F, Bruntt, H, Carone, L, Carpano, S, Cavarroc, C, Cochran, W, Deeg, H. J, Díaz, R. F, Dvorak, R, Endl, M, Erikson, A, Ferraz-Mello, S, Fruth, T, Gazzano, J.-C, **Gillon, M**, Guenther, E. W, Guillot, T, Hatzes, A, Havel, M, Hébrard, G, **Jehin, E**, Jorda, L, Léger, A, Llebaria, A, Lammer, H, Lovis, C, MacQueen, P. J, Mazeh, T, Ollivier, M, Pätzold, M, Queloz, D, Rauer, H, Rouan, D, Santerne, A, Schneider, J, Tingley, B, Titz-Weider, R, & Wuchterl, G. (2011). Transiting exoplanets from the CoRoT space mission. XVII. The hot Jupiter CoRoT-17b: a very old planet. *Astronomy and Astrophysics*, 531, 41.

<http://hdl.handle.net/2268/95414>

Demory, B.-O, **Gillon, M**, Deming, D, Valencia, D, Seager, S, Benneke, B, Lovis, C, Cubillos, P, Harrington, J, Stevenson, K. B, Mayor, M, Pepe, F, Queloz, D, Segransan, D, & Udry, S. (2011). Detection of a transit of the super-Earth 55 Cnc e with Warm Spitzer. *Astronomy and Astrophysics*, 533, 114.

<http://hdl.handle.net/2268/95420>

Demory, B.-O, Seager, S, Madhusudhan, N, Kjeldsen, H, Christensen-Dalsgaard, J, **Gillon, M**, Rowe, J. F, Welsh, W. F, Adams, E. R, Dupree, A, McCarthy, D, Kulesa, C, Borucki, W. J, & Koch, D. G. (2011). The High Albedo of the Hot Jupiter Kepler-7 b. *Astrophysical Journal*, 735, 12.

<http://hdl.handle.net/2268/95412>

Désert, J.-M, Charbonneau, D, Demory, B.-O, Ballard, S, Carter, J. A, Fortney, J. J, Cochran, W. D, Endl, M, Quinn, S. N, Isaacson, H. T, Fressin, F, Buchhave, L. A, Latham, D. W, Knutson, H. A, Bryson, S. T, Torres, G, Rowe, J. F, Batalha, N. M, Borucki, W. J, Brown, T. M, Caldwell, D. A, Christiansen, J. L, Deming, D, Fabrycky, D. C, Ford, E. B, Gilliland, R. L, **Gillon, M**, Haas, M. R, Jenkins, J. M, Kinemuchi, K, Koch, D, Lissauer, J. J, Lucas, P, Mullally, F, MacQueen, P. J, Marcy, G. W, Sasselov, D. D, Seager, S, Still, M, Tenenbaum, P, Uddin, K, & Winn, J. N. (2011). The Hot-Jupiter Kepler-17b: Discovery, Obliquity from Stroboscopic Starspots, and Atmospheric Characterization. *Astrophysical Journal. Supplement Series*, 197, 14.

<http://hdl.handle.net/2268/107267>

Enoch, B, Anderson, D. R, Barros, S. C. C, Brown, D. J. A, Collier Cameron, A, Faedi, F, **Gillon, M**, Hébrard, G, Lister, T. A, Queloz, D, Santerne, A, Smalley, B, Street, R. A, Triaud, A. H. M. J, West, R. G, Bouchy, F, Bento, J, Butters, O, Fossati, L, Haswell, C. A, Hellier, C, Holmes, S, Jehen, E, Lendl, M, Maxted, P. F. L, McCormac, J, Miller, G. R. M, Moulds, V, Moutou, C, Norton, A. J, Parley, N, Pepe, F, Pollacco, D, Segransan, D, Simpson, E, Skillen, I, Smith, A. M. S, Udry, S, & Wheatley, P. J. (2011). WASP-35b, WASP-48b and WASP-51b: Two new planets and an independent discovery of HAT-P-30b. *Astronomical Journal (The)*, 142(3), 86.

<http://hdl.handle.net/2268/95421>

Fortney, J. J, Demory, B.-O, Désert, J.-M, Rowe, J, Marcy, G. W, Isaacson, H, Buchhave, L. A, Ciardi, D, Gautier, T. N, Batalha, N. M, Caldwell, D. A, Bryson, S. T, Nutzman, P, Jenkins, J. M, Howard, A, Charbonneau, D, Knutson, H. A, Howell, S. B, Everett, M, Fressin, F, Deming, D, Borucki, W. J, Brown, T. M, Ford, E. B, Gilliland, R. L, Latham, D. W, Miller, N, Seager, S, Fischer, D. A, Koch, D, Lissauer, J. J, Haas, M. R, Still, M, Lucas, P, **Gillon, M**, Christiansen, J. L, & Geary, J. C. (2011). Discovery and Atmospheric Characterization of Giant Planet Kepler-12b: An Inflated Radius Outlier. *Astrophysical Journal. Supplement Series*, 197, 9.

<http://hdl.handle.net/2268/102246>

Fortney, J. J, Demory, B.-O, Désert, J.-M, Rowe, J, Marcy, G. W, Isaacson, H, Buchhave, L. A, Ciardi, D, Gautier, T. N, Batalha, N. M, Caldwell, D. A, Bryson, S. T, Nutzman, P, Jenkins, J. M, Howard, A, Charbonneau, D, Knutson, H. A, Howell, S. B, Everett, M, Fressin, F, Deming, D, Borucki, W. J, Brown, T. M, Ford, E. B, Gilliland, R. L, Latham, D. W, Miller, N, Seager, S, Fischer, D. A, Koch, D, Lissauer, J. J, Haas, M. R, Still, M, Lucas, P, **Gillon, M**, Christiansen, J. L, & Geary, J. C. (2011). Discovery and Atmospheric Characterization of Giant Planet Kepler-12b: An Inflated Radius Outlier. *Astrophysical Journal. Supplement Series*, 197, 9.

<http://hdl.handle.net/2268/107268>

Hébrard, G, Evans, T. M, Alonso, R, Fridlund, M, Ofir, A, Aigrain, S, Guillot, T, Almenara, J. M, Auvergne, M, Baglin, A, Barge, P, Bonomo, A. S, Bordé, P, Bouchy, F, Cabrera, J, Carone, L, Carpano, S, Cavarroc, C, Csizmadia, S, Deeg, H. J, Deleuil, M, Díaz, R. F, Dvorak, R, Erikson, A, Ferraz-Mello, S, Gandolfi, D, Gibson, N, **Gillon, M**, Guenther, E, Hatzes, A, Havel, M, Jorda, L, Lammer, H, Léger, A, Llebaria, A, Mazeh, T, Moutou, C, Ollivier, M, Parviainen, H, Pätzold, M, Queloz, D, Rauer, H, Rouan, D, Santerne, A, Schneider, J, Tingley, B, & Wuchterl, G. (2011). Transiting exoplanets from the CoRoT space mission. XVIII. CoRoT-18b: a massive hot Jupiter on a prograde, nearly aligned orbit. *Astronomy and Astrophysics*, 533, 130.

<http://hdl.handle.net/2268/102249>

Hellier, C, Anderson, D. R, Collier Cameron, A, **Gillon, M**, **Jehin, E**, Lendl, M, Maxted, P. F. L, Pepe, F, Pollacco, D, Queloz, D, Segransan, D, Smalley, B, Smith, A. M. S, Southworth, J, Triaud, A. H. M. J, Udry, S, & West, R. G. (2011). WASP-43b: The closest-orbiting hot Jupiter [letter to the editor]. *Astronomy and Astrophysics*, 535, 5.

<http://hdl.handle.net/2268/95423>

Maxted, P. F. L, Anderson, D. R, Collier Cameron, A, Hellier, C, Queloz, D, Smalley, B, Street, R. A, Triaud, A. H. M. J, West, R. G, **Gillon, M**, Lister, T. A, Pepe, F, Pollacco, D, Segransan, D, Smith, A. M. S, & Udry, S. (2011). WASP-41b: A transiting hot Jupiter planet orbiting a magnetically-active G8V star. *Publications of the Astronomical Society of the Pacific [=PASP]*, 123, 547-554.

<http://hdl.handle.net/2268/95260>

Meech, K. ... **Gillon, M**, Guido, E, Guillermo, R. A, Hadamcik, E, Hainaut, O, Hammel, H. B, Harker, D. E, Harmon, J. K, Harris, W. M, Hartogh, P, Hashimoto, M, Häusler, B, Herter, T, Hjalmarson, A, Holland, S. T, Honda, M, Hosseini, S, Howell, E. S, Howes, N, Hsieh, H. H, Hsiao, H.-Y, Hutsemekers, D, Immler, S. M, Jackson, W. M, Jeffers, S. V, **Jehin, E**, ... **Magain, P**, et al. (2011). EPOXI: Comet 103P/Hartley 2 Observations from a Worldwide Campaign. *Astrophysical Journal*, 734, 1.

<http://hdl.handle.net/2268/95417>

Nymeyer, S, Harrington, J, Hardy, R. A, Stevenson, K. B, Campo, C. J, Madhusudhan, N, Collier-Cameron, A, Blecic, J, Bowman, W. C, Britt, C. B. T, Cubillos, P, Hellier, C, **Gillon, M**, Maxted, P. F. L, Hebb, L, Wheatley, P. J, Pollacco, D, & Anderson, D. (2011). Spitzer Secondary Eclipses of WASP-18b. *Astrophysical Journal*, 742(1), 35.

<http://hdl.handle.net/2268/60743>

Rouan, D, Parviainen, H, Moutou, C, Deleuil, M, Fridlund, M, Ofir, A, Havel, M, Aigrain, S, Alonso, R, Auvergne, M, Baglin, A, Barge, P, Bonomo, A, Bordé, P, Bouchy, F, Cabrera, J, Cavarroc, C, Csizmadia, S, Deeg, H, Diaz, R. F, Dvorak, R, Erikson, A, Ferraz-Mello, S, Gandolfi, D, **Gillon, M**, Guillot, T, Hatzes, A, Hébrard, G, Jorda, L, Léger, A, Llebaria, A, Lammer, H, Lovis, C, Mazeh, T, Ollivier, M, Pätzold, M, Queloz, D, Rauer, H, Samuel, B, Santerne, A, Schneider, J, Tingley, B, & Wuchterl, G. (2011). Transiting exoplanets from the CoRoT space mission - XIX. CoRoT-23b: a dense hot Jupiter on an eccentric orbit. *Astronomy and Astrophysics*, 537, 54.

<http://hdl.handle.net/2268/107264>

Rousselot, P, **Jehin, E**, Manfroid, J, Mousis, O, Dumas, C, Carry, B, Marboeuf, U, & Zucconi, J.-M. (2011). A Search for Water Vaporization on Ceres. *Astronomical Journal (The)*, 142, 125.

<http://hdl.handle.net/2268/110942>

Shinnaka, Y, Kawakita, H, Kobayashi, H, **Jehin, E**, Manfroid, J, Hutsemekers, D, & Arpigny, C. (2011). Ortho-to-para Abundance Ratio (OPR) of Ammonia in 15 Comets: OPRs of Ammonia Versus 14N/15N Ratios in CN. *Astrophysical Journal*, 729, 81, pp. 1-15.

<http://hdl.handle.net/2268/10367>

Sicardy, B, Ortiz, J. L, Assafin, M, **Jehin, E**, Maury, A, Lellouch, E, Hutton, R. G, Braga-Ribas, F, Colas, F, Hestroffer, D, Lecacheux, J, Roques, F, Santos-Sanz, P, Widemann, T, Morales, N, Duffard, R, Thirouin, A, Castro-Tirado, A. J, Jelínek, M, Kubánek, P, Sota, A, Sánchez-Ramírez, R, Andrei, A. H, Camargo, J. I. B, da Silva Neto, D. N, Gomes, A. R, Martins, R. V, **Gillon, M**, Manfroid, J, Tozzi, G. P, Harlingen, C, Saravia, S, Behrend, R, Mottola, S, Melendo, E. G, Peris, V, Fabregat, J, Madiedo, J. M, Cuesta, L, Eibe, M. T, Ullán, A, Organero, F, Pastor, S, de Los Reyes, J. A, Pedraz, S, Castro, A, de La Cueva, I, Muler, G, Steele, I. A, Cebrián, M, Montañés-Rodríguez, P, Oscoz, A, Weaver, D, Jacques, C, Corradi, W. J. B, Santos, F. P, Reis, W, Milone, A, Emilio, M, Gutiérrez, L, Vazquez Sabariego, R, & Hernández-Toledo, H. (2011). A Pluto-like radius and a high albedo for the dwarf planet Eris from an occultation. *Nature*, 478, 493-496.

<http://hdl.handle.net/2268/107675>

Simpson, E. K., Pollacco, D., Collier Cameron, A., Hebrard, G., Anderson, D. R., Barros, S. C. C., Boisse, I., Bouchy, F., Faedi, F., **Gillon, M.**, Hebb, L., Keenan, F. P., Miller, G. R. M., Moutou, C., Queloz, D., Skillen, I., Sorensen, P., Stempels, H. C., Triaud, A., Watson, C. A., & Wilson, P. A. (2011). The spin-orbit angles of the transiting exoplanets WASP-1b, WASP-24b, WASP-38b and HAT-P-8b from Rossiter-McLaughlin observations. *Monthly Notices of the Royal Astronomical Society*, 414, 3023.

<http://hdl.handle.net/2268/95265>

Sluse, D., **Chantry, V.**, **Magain, P.**, Courbin, F., & Meylan, G. (2011). COSMOGRAIL: the COSmological MONitoring of GRAVitational Lenses X. Modeling based on high-precision astrometry of a sample of 25 lensed quasars: consequences for ellipticity, shear, and astrometric anomalies. *ArXiv e-prints*, 1112, 5.

<http://hdl.handle.net/2268/110584>

Smalley, B., Anderson, D. R., Collier Cameron, A., Hellier, C., Lendl, M., Maxted, P. F. L., Queloz, D., Triaud, A. H. M. J., West, R. G., Bentley, S. J., Enoch, B., **Gillon, M.**, Lister, T. A., Pepe, F., Pollacco, D., Segransan, D., Smith, A. M. S., Southworth, J., Udry, S., Wheatley, P. J., Wood, P. L., & Bento, J. (2011). WASP-34b: a near-grazing transiting sub-Jupiter-mass exoplanet in a hierarchical triple system. *Astronomy and Astrophysics*, 526, 130.

<http://hdl.handle.net/2268/95262>

Smoker, J. V., Bagnulo, S., Cabanac, R., Keenan, F. P., Fossati, L., Ledoux, C., **Jehin, E.**, & Melo, C. (2011). Early-type stars observed in the ESO UVES Paranal Observatory Project - III. Sub-parsec and au-scale structure in the interstellar medium. *Monthly Notices of the Royal Astronomical Society*, 414, 59-75.

<http://hdl.handle.net/2268/107599>

Tal-Or, L., Santerne, A., Mazeh, T., Bouchy, F., Moutou, C., Alonso, R., Gandolfi, D., Aigrain, S., Auvergne, M., Barge, P., Bonomo, A. S., Bordé, P., Deeg, H., Ferraz-Mello, S., Deleuil, M., Dvorak, R., Erikson, A., Fridlund, M., **Gillon, M.**, Guenther, E. W., Guillot, T., Hatzes, A., Jorda, L., Lammer, H., Léger, A., Llebaria, A., Ollivier, M., Pätzold, M., Queloz, D., Rauer, H., Rouan, D., Tsodikovich, Y., & Wuchterl, G. (2011). CoRoT LRa02\_E2\_0121: Neptune-size planet candidate turns into a hierarchical triple system with a giant primary. *Astronomy and Astrophysics*, 534, 67.

<http://hdl.handle.net/2268/102253>

Tingley, B., Endl, M., Gazzano, J.-C., Alonso, R., Mazeh, T., Jorda, L., Aigrain, S., Almenara, J.-M., Auvergne, M., Baglin, A., Barge, P., Bonomo, A. S., Bordé, P., Bouchy, F., Bruntt, H., Cabrera, J., Carpano, S., Carone, L., Cochran, W. D., Csizmadia, S., Deleuil, M., Deeg, H. J., Dvorak, R., Erikson, A., Ferraz-Mello, S., Fridlund, M., Gandolfi, D., **Gillon, M.**, Guenther, E. W., Guillot, T., Hatzes, A., Hébrard, G., Léger, A., Llebaria, A., Lammer, H., Lovis, C., MacQueen, P. J., Moutou, C., Ollivier, M., Ofir, A., Pätzold, M., Pepe, F., Queloz, D., Rauer, H., Rouan, D., Samuel, B., Schneider, J., Shporer, A., & Wuchterl, G. (2011). Transiting exoplanets from the CoRoT space mission. XVI. CoRoT-14b: an unusually dense very hot Jupiter. *Astronomy and Astrophysics*, 528, 97.

<http://hdl.handle.net/2268/95425>

Triaud, A. H. M. J., Queloz, D., Hellier, C., **Gillon, M.**, Smalley, B., Hebb, L., Collier Cameron, A., Anderson, D., Boisse, I., Hébrard, G., **Jehin, E.**, Lister, T., Lovis, C., Maxted, P. F. L., Pepe, F., Pollacco, D., Ségransan, D., Simpson, E., Udry, S., & West, R. (2011). WASP-23b: a transiting hot Jupiter around a K dwarf and its Rossiter-McLaughlin effect. *Astronomy and Astrophysics*, 531, 24.

<http://hdl.handle.net/2268/95415>

**Jehin, E.**, **Gillon, M.**, Queloz, D., **Magain, P.**, Manfroid, J., **Chantry, V.**, Lendl, M., Hutsemekers, D., & Udry, S. (2011). TRAPPIST: TRAnsiting Planets and PlanetesImals Small Telescope. *The Messenger*, 145, 2-6.

<http://hdl.handle.net/2268/99971>

## In press

---

Carry, B., Vernazza, P., Dumas, C., Merline, W. J., Mousis, O., Rousselot, P., **Jehin, E.**, Manfroid, J., Fulchignoni, M., & Zucconi, J.-M. The remarkable surface homogeneity of the Dawn mission target (1) Ceres. *Icarus*

<http://hdl.handle.net/2268/107598>

Löhne, T, Augereau, J.-C, Ertel, S, Marshall, J. P, Eiroa, C, Mora, A, Absil, O, Stapelfeldt, K, Thébault, P, Bayo, A, Del Burgo, C, Danchi, W, Krivov, A. V, Lebreton, J, **Letawe, G**, **Magain, P**, Maldonado, J, Montesinos, B, Pilbratt, G. L, White, G. J, & Wolf, S. Modelling the huge, Herschel-resolved debris ring around HD 207129. *Astronomy and Astrophysics*

<http://hdl.handle.net/2268/109563>

# Atmospheric and Planetary Physics

Boakes, P. D, Milan, S. E, Abel, G. A, Freeman, M. P, Chisham, G, & **Hubert, B.** (2011). A superposed epoch investigation of the relation between magnetospheric solar wind driving and substorm dynamics with geosynchronous particle injection signatures. *Journal of Geophysical Research. Space Physics*, 116, 01214.

<http://hdl.handle.net/2268/86461>

**Bonfond, B**, Vogt, M. F, **Gérard, J.-C**, **Grodent, D**, **Radioti, A**, & **Coumans, V.** (2011). Quasi-periodic polar flares at Jupiter: A signature of pulsed dayside reconnections? *Geophysical Research Letters*, 38, L02104.

<http://hdl.handle.net/2268/97516>

Brecht, A. S, Bouger, S. W, **Gérard, J.-C**, Parkinson, C. D, Rafkin, S, & Foster, B. (2011). Understanding the variability of nightside temperatures, NO UV and O<sub>2</sub> IR nightglow emissions in the Venus upper atmosphere. *Journal of Geophysical Research. Planets*, 116, 08004.

<http://hdl.handle.net/2268/100130>

François L., T. Utescher, E. Favre, **A.-J. Henrot**, P. Warnant, A. Micheels, B. Erdei, J.-P. Suc, R. Cheddadi, & V. Mosbrugger, (2011) Modelling Late Miocene vegetation in Europe: Results of the CARAIB model and comparison with palaeovegetation data. *Paleogeogr. Paleoecol. Paleoclim.* 304, 359-378

Dury M., A. Hambuckers, P. Warnant, **A.-J. Henrot**, E. Favre, M. Ouberdous, & L. François, (2011) Responses of European forest ecosystems to 21<sup>st</sup> century climate: assessing changes in interannual variability and fire intensity. *iForest - Biogeosciences and Forestry* 4, 82-89

Friedrich, T, Timmermann, A, Decloedt, T, Luther, D. S, & **Mouchet, A.** (2011). The effect of topography-enhanced diapycnal mixing on ocean and atmospheric circulation and marine biogeochemistry. *Ocean Modelling*, 3-4.

<http://hdl.handle.net/2268/97938>

**Gérard, J.-C**, **Gustin, J**, **Hubert, B**, Gladstone, G. R, & Esposito, L. W. (2011). Measurements of the helium 584 Å airglow during the Cassini flyby of Venus. *Planetary and Space Science*, 59, 1524-1528.

<http://hdl.handle.net/2268/100142>

**Gérard, J.-C**, **Hubert, B**, **Gustin, J**, Shematovich, V. I, Bisikalo, D, Gladstone, G. R, & Esposito, L. W. (2011). EUV spectroscopy of the Venus dayglow with UVIS on Cassini. *Icarus: International Journal of Solar System Studies*, 211, 70-80.

<http://hdl.handle.net/2268/100141>

Goelzer, H, Huybrechts, P, Loutre, M.-F, Goosse, H, Fichefet, T, & **Mouchet, A.** (2011). Impact of Greenland and Antarctic ice sheet interactions on climate sensitivity. *Climate Dynamics*, 37(5-6), 1005-1018.

<http://hdl.handle.net/2268/62572>

**Grodent, D**, **Gustin, J**, **Gérard, J.-C**, **Radioti, A**, **Bonfond, B**, & Pryor, W. R. (2011). Small-scale structures in Saturn's ultraviolet aurora. *Journal of Geophysical Research. Space Physics*, 116, A09225.

<http://hdl.handle.net/2268/99884>

Hess, S. L. G, **Bonfond, B**, Zarka, P, & **Grodent, D.** (2011). Model of the Jovian magnetic field topology constrained by the Io auroral emissions. *Journal of Geophysical Research. Space Physics*, 116, 05217.

<http://hdl.handle.net/2268/97515>

Loutre, M.-F, **Mouchet, A**, Fichefet, T, Goosse, H, Goelzer, H, & Huybrechts, P. (2011). Evaluating climate model performance with various parameter sets using observations over the recent past. *Climate of the Past*, 7, 511-526.

<http://hdl.handle.net/2268/97935>

Melin, H, T. Stallard, S. Miller, **J. Gustin**, M. Galand, S. V. Badman, W. R. Pryor, J. O'Donoghue, R. H. Brown, & K. H. Baines (2011). Simultaneous Cassini VIMS and UVIS observations of Saturn's southern aurora: Comparing emissions from H, H<sub>2</sub> and H<sub>3</sub><sup>+</sup> at a high spatial resolution, *Geophys. Research Letters*, 38, L15203, doi:10.1029/2011GL048457

Meniel, L, Timmermann, A, Timm, O, & **Mouchet, A**. (2011). Deconstructing the Last Glacial Termination: the role of millennial and orbital-scale forcings. *Quaternary Science Reviews*, 30, 1155-1172.

<http://hdl.handle.net/2268/97936>

Montmessin, F, Bertaux, J.-L, Lefèvre, F, Marcq, E, Belayev, D, **Gérard, J.-C**, Federova, A, Sarago, V, & Vandaele, A. C. (2011). A layer of ozone detected in the nightside upper atmosphere of Venus. *Icarus: International Journal of Solar System Studies*, 216, 82-85.

<http://hdl.handle.net/2268/100136>

Pryor, W. R, Rymer, A. M, Mitchell, D. G, Hill, T. W, Young, D. T, Saur, J, Jones, G. H, Jacobsen, S, Cowley, S. W. H, Mauk, B.H, Coates, A. J, **Gustin, J, Grodent, D, Gérard, J.-C**, Lamy, L, Nichols, J. D, Krimigis, S. M, Esposito, L. W, Dougherty, M. K, Jouchoux, A. J, Stewart, A. I. F, McClintock, W. E, Holsclaw, G. M, Ajello, J. M, Colwell, J. E, Hendrix, A. R, Crary, F. J, Clarke, J.T, & Zhou, X. (2011). The auroral footprint of Enceladus on Saturn. *Nature*, 472, 331-333.

<http://hdl.handle.net/2268/90599>

**Radioti, A, Grodent, D, Gérard, J.-C**, Vogt, M. F, Lystrup, M, & **Bonfond, B**. (2011). Nightside reconnection at Jupiter: Auroral and magnetic field observations from 26 July 1998. *Journal of Geophysical Research. Space Physics*, 116, A03221.

<http://hdl.handle.net/2268/97518>

**Radioti A., Grodent, D, Gérard, J.-C**, Milan S., **Bonfond, B, Gustin J.** & Pryor, W. R. (2011). Bifurcations of the main auroral ring at Saturn: ionospheric signatures of consecutive reconnection events at the magnetopause , *J. Geophys. Res.*, 116, A11209

<http://hdl.handle.net/2268/98719>

Saur, J, Feldman, P. D, Roth, L, Nimmo, F, Strobel, D. F, Rutherford, K. D, McGrath, M. A, Schilling, N, **Gérard, J.-C, & Grodent, D**. (2011). Hubble Space Telescope/Advanced Camera for Surveys Observations of Europa's Atmospheric Ultraviolet Emission at Eastern Elongation. *Astrophysical Journal*, 738, 153.

<http://hdl.handle.net/2268/99886>

Stevens, M.H., **J. Gustin**, J. M. Ajello, J. S. Evans, R. R. Meier, A. J. Kochenash, A. W. Stephan, A. I. F. Stewart, L. W. Esposito, W. E. McClintock, G. Holsclaw, E. T. Bradley, B.R. Lewis, A.N. Heays (2011) The Production of Titan's Ultraviolet Nitrogen Airglow, *J. Geophys. Res.*, 116, A05304, doi:10.1029/2010JA016284

Vogt, M. F, Kivelson, M. G, Khurana, K. K, Walker, R. J, **Bonfond, B, Grodent, D, & Radioti, A**. (2011). Improved mapping of Jupiter's auroral features to magnetospheric sources. *Journal of Geophysical Research. Space Physics*, 116, A03220.

<http://hdl.handle.net/2268/82518>

In press

---

**Bonfond, B, Grodent, D, Gérard, J.-C, Stallard, T, Clarke, J. T, Yoneda, M, Radioti, A, & Gustin, J.**, Auroral evidence of Io's control over the magnetosphere of Jupiter. *Geophysical Research Letters*

Brecht, A, Bouger, S. W, **Gérard, J.-C, & Soret, L.** Atomic oxygen distributions in the Venus thermosphere: Comparisons between Venus Express observations and global model simulations. *Icarus: International Journal of Solar System Studies*.

**Gérard, J.-C, Soret, L**, Piccioni, G, & Drossart, P. D. Spatial correlation of OH Meinel and O<sub>2</sub> Infrared Atmospheric nightglow emissions observed with VIRTIS-M on board Venus Express. *Icarus: International Journal of Solar System Studies*

Hamon, N., P. Sepulchre, Y. Donnadieu, **A.-J. Henrot**, L. François, J.-J. Jaeger, & G. Ramstein, Growth of subtropical forests in Miocene Europe: The role of carbon dioxide and Antarctic ice volume. *Geology*

**Soret, L, Gérard, J.-C**, Montmessin, F, Piccioni, G, Drossart, P, & Bertaux, J.-L. Atomic oxygen on the Venus nightside: Global distribution deduced from airglow mapping. *Icarus: International Journal of Solar System Studies*.

## Atmospheric and solar Spectroscopy

Angelbratt, J, Mellqvist, J, Simpson, D, Jonson, J. E, Blumenstock, T, Borsdorff, T, **Duchatelet, P**, Forster, F, Hase, F, **Mahieu, E**, De Mazière, M, Notholt, J, Petersen, A. K, Raffalski, U, **Servais, C**, Sussmann, R, Warneke, T, & Vigouroux, C. (2011). Carbon monoxide (CO) and ethane ( $C_2H_6$ ) trends from ground-based solar FTIR measurements at six European stations, comparison and sensitivity analysis with the EMEP model. *Atmospheric Chemistry and Physics*, 11(17), 9253-9269.  
<http://hdl.handle.net/2268/99851>

Angelbratt, J, Mellqvist, J, Blumenstock, T, Borsdorff, T, Brohede, S, **Duchatelet, P**, Forster, F, Hase, F, **Mahieu, E**, Murtagh, D, Petersen, A. K, Schneider, M, Sussmann, R, & Urban, J. (2011). A new method to detect long term trends of methane ( $CH_4$ ) and nitrous oxide ( $N_2O$ ) total columns measured within the NDACC ground-based high resolution solar FTIR network. *Atmospheric Chemistry and Physics*, 11(13), 6167-6183.

<http://hdl.handle.net/2268/95001>

Dils, B, Cui, J, Henne, S, **Mahieu, E**, Steinbacher, M, & De Mazière, M. (2011). 1997–2007 CO trend at the high Alpine site Jungfraujoch: a comparison between NDIR surface in situ and FTIR remote sensing observations. *Atmospheric Chemistry and Physics*, 11(13), 6735-6748.

<http://hdl.handle.net/2268/96660>

Kohlhepp, R, Ruhnke, R, Chipperfield, M. P, De Mazière, M, Notholt, J, Barthlott, S, Batchelor, R. L, Blatherwick, R. D, Blumenstock, T, Coffey, M. T, **Demoulin, P**, Fast, H, Feng, W, Goldman, A, Griffith, D. W. T, Hamann, K, Hannigan, J. W, Hase, F, Jones, N. B, Kagawa, A, Kaiser, I, Kasai, Y, Kirner, O, Kouker, W, Lindenmaier, R, **Mahieu, E**, Mittermeier, R. L, Monge-Sanz, B, Murata, I, Nakajima, H, Morino, I, Palm, M, Paton-Walsh, C, Raffalski, U, Reddmann, T, Rettinger, M, Rinsland, C. P, Rozanov, E, Schneider, M, Senten, C, **Servais, C**, Sinnhuber, B.-M, Smale, D, Strong, K, Sussmann, R, Taylor, J. R, Vanhaelewijn, G, Warneke, T, Whaley, C, Wiehle, M, & Wood, S. W. (2011). Observed and simulated time evolution of HCl,  $ClONO_2$ , and HF total column abundances. *Atmospheric Chemistry & Physics Discussions*, 11(12), 32085-32160.

<http://hdl.handle.net/2268/110516>

Montzka, S. A, Reimann, S, Engel, A, Kruger, K, Sturges, W. T, Blake, D, Dorf, M, Fraser, P, Froidevaux, L, Jucks, K, Kreher, K, Kurylo, M. J, Mellouki, A, Miller, J, Nielsen, O.-J, Orkin, V. L, Prinn, R. G, Rhew, R, Santee, M. L, Stohl, A, Verdonik, D, Krummel, P. B, Atlas, E. (Other coll.), Bernath, P. (Other coll.), Blumenstock, T. (Other coll.), Butler, J. H. (Other coll.), Butz, A. (Other coll.), Connor, B. (Other coll.), **Duchatelet, P**. (Other coll.), Dutton, G. (Other coll.), Hendrick, F. (Other coll.), Krummel, P. B. (Other coll.), Kuijpers, L. J. M. (Other coll.), **Mahieu, E** ... et al. (2011). Ozone-Depleting Substances (ODSs) and Related Chemicals (Chapter 1). In A.-L., Nohende Ajavon, P. A., Newmann, J. A., Pyle, & A. R., Ravishankara (Eds.), *Scientific Assessment of Ozone Depletion: 2010* (pp. 1.1-1.108). Genève, Suisse.  
<http://hdl.handle.net/2268/83929>

In press

Rinsland, C. P., **Mahieu, E.**, **Demoulin, P.**, **Zander, R.**, **Servais, C.**, & Hartmann, J.-M., Decrease of the carbon tetrachloride ( $CCl_4$ ) loading above Jungfraujoch, based on high resolution infrared solar spectra recorded between 1999 and 2011. *Journal of Quantitative Spectroscopy and Radiative Transfer*

## Chemical Oceanography

**Borges, A.** (2011). Present day carbon dioxide fluxes in the coastal ocean and possible feedbacks under global change. In P. M., da Silva Duarte & J. M., Santana Casiano (Eds.), *Oceans and the atmospheric carbon content* (1st Edition, pp. 47-77). Springer.

<http://hdl.handle.net/2268/82202>

**Borges, A**, Abril, G, **Delille, B**, Descy, J.-P, & **Darchambeau, F.** (2011). Diffusive methane emissions to the atmosphere from Lake Kivu (Eastern Africa). *Journal of Geophysical Research. Biogeosciences*, 116(G03032).

<http://hdl.handle.net/2268/98735>

Borchard, **Borges, A**, Händel, N, & Engel", A. (2011). Biogeochemical response of Emiliania huxleyi (PML B92/11) to elevated CO<sub>2</sub> and temperature under phosphorous limitation: A chemostat study. *Journal of Experimental Marine Biology & Ecology*, 410, 61-71.

<http://hdl.handle.net/2268/103646>

Gypens, N, Lacroix, G, Lancelot, C, & **Borges, A.** (2011). Seasonal and inter-annual variability of air-sea CO<sub>2</sub> fluxes and seawater carbonate chemistry in the Southern North Sea. *Progress in Oceanography*, 88, 59-77.

<http://hdl.handle.net/2268/83543>

**Harlay, J**, Chou, L, De Bodt, C, Van Oostende, N, Piontek, J, Suykens, K, Engel, A, Sabbe, K, Groom, S, **Delille, B**, & **Borges, A.** (2011). Biogeochemistry and carbon mass balance of a coccolithophore bloom in the northern Bay of Biscay (June 2006). *Deep-Sea Research Part I, Oceanographic Research Papers*, 58(2), 111-127.

<http://hdl.handle.net/2268/80279>

Joassin, P, Delille, B, Soetaert, K, **Harlay, J**, **Borges, A**, Chou, L, Riebesell, U, Suykens, K, & Grégoire, M. (2011). Carbon and nitrogen flows during a bloom of the coccolithophore Emiliania huxleyi: Modelling a mesocosm experiment. *Journal of Marine Systems*, 85, 71-85.

<http://hdl.handle.net/2268/83843>

Suykens, K, Schmidt, S, **Delille, B**, **Harlay, J**, Chou, L, De Bodt, C, Fagel, N, & **Borges, A.** (2011). Benthic remineralization in the northwest European continental margin (northern Bay of Biscay). *Continental Shelf Research*, 31, 644-658.

<http://hdl.handle.net/2268/81232>

Piontek J., N. Händel, C. de Bodt, **J. Harlay**, L. Chou & A. Engel (2011) The utilization of polysaccharides by heterotrophic bacterioplankton in the Bay of Biscay (North Atlantic Ocean), *Journal of Plankton Research*, 33 (11), 1719-173

Gonzalez-Davila M., J. M. Santana-Casiano, R. A. Fine, J. Happell, **B. Delille** & S. Speich (2011) Carbonate system in the water masses of the Southeast Atlantic sector of the Southern Ocean during February and March 2008, *Biogeosciences*, 8, 1401-1413.

Rysgaard S, J. Bendtsen, **B. Delille**, G.S. Dieckmann, R.N. Glud, H. Kennedy, J. Mortensen, S. Papadimitriou, D.N. Thomas & J.-L. Tison (2011) Sea ice contribution to the air-sea CO<sub>2</sub> exchange in the Arctic and Southern Oceans, *Tellus*, 63B, 823-830

Lewis M.J., J.L. Tison, B. Weissling, **B. Delille**, S.F. Ackley, F. Brabant, and H. Xie (2011) Sea ice and snow cover characteristics during the winter-spring transition in the Bellingshausen Sea: an overview of SIMBA 2007, *Deep-Sea Research II*, 58, 1019-1038, doi:10.1016/j.dsr2.2010.10.027

## In press

---

Champenois, W, & **Borges, A.** Seasonal and interannual variations of community metabolism rates of a *Posidonia oceanica* seagrass meadow. *Limnology & Oceanography*.

<http://hdl.handle.net/2268/108047>

Schmidt, S, **Harlay, J**, **Borges, A**, Groom, S, **Delille, B**, Roevros, N, Christodoulou, S, & Chou, L. Particle export during a bloom of *Emiliania huxleyi* in the North-West European continental margin. *Journal of Marine Systems*

<http://hdl.handle.net/2268/80860>

## Climate and Biogeochemical Cycles Modelling Unit

**François L.**, T. Utescher, E. Favre, A.-J. Henrot, P. Warnant, A. Micheels, B. Erdei, J.-P. Suc, R. Cheddadi, & V. Mosbrugger, (2011) Modelling Late Miocene vegetation in Europe: Results of the CARAIB model and comparison with palaeovegetation data. *Paleogeogr. Paleoclim. Paleoecol.* 304, 359-378

**Dury M.**, A. Hambuckers, P. Warnant, A.-J. Henrot, E. Favre, **M. Ouberdous, & L. François**, (2011) Responses of European forest ecosystems to 21<sup>st</sup> century climate: assessing changes in interannual variability and fire intensity. *iForest - Biogeosciences and Forestry* 4, 82-89

In press

---

Shuli Niu, ... , **Louis François** et al., Thermal Optimality of Net Ecosystem Exchange of Carbon Dioxide and Underlying Mechanisms, *New Phytologist*

Hamon, N., P. Sepulchre, Y. Donnadieu, **A.-J. Henrot**, L. François, J.-J. Jaeger, & G. Ramstein, Growth of subtropical forests in Miocene Europe: The role of carbon dioxide and Antarctic ice volume. *Geology*

# Extragalactic Astrophysics and Space Observations

Mennesson, B, **Hanot, C**, Serabyn, E, Liewer, K, Martin, S, & Mawet, D. (2011). High-contrast Stellar Observations within the Diffraction Limit at the Palomar Hale Telescope. *Astrophysical Journal*, 743, 178. <http://hdl.handle.net/2268/110971>

Malbet, F, Léger, A, Shao, M, Goullioud, R, Lagage, P.-O, Brown, A. G. A, Cara, C, Durand, G, Eiroa, C, Feautrier, P, Jakobsson, B, Hinglais, E, Kaltenegger, L, Labadie, L, Lagrange, A.-M, Laskar, J, Liseau, R, Lunine, J, Maldonado, J, Mercier, M, Mordasini, C, Queloz, D, Quirrenbach, A, Sozzetti, A, Traub, W, **Absil, O**, Alibert, Y, Andrei, A. H, Arenou, F, Beichman, C, Chelli, A, Cockell, C. S, Duvert, G, Forveille, T, Garcia, P. J. V, Hobbs, D, Krone-Martins, A, Lammer, H, Meunier, N, Minardi, S, Moitinho de Almeida, A, Rambaux, N, Raymond, S, Röttgering, H. J. A, Sahlmann, J, Schuller, P. A, Ségransan, D, Selsis, F, Surdej, J, Villaver, E, White, G. J, & Zinnecker, H. (*in press*). High precision astrometry mission for the detection and characterization of nearby habitable planetary systems with the Nearby Earth Astrometric Telescope (NEAT). *Experimental Astronomy*. <http://hdl.handle.net/2268/109578>

Eiroa, C, Marshall, J. P, Mora, A, Krivov, A. V, Montesinos, B, **Absil, O**, Ardila, D, Arévalo, M, Augereau, J.-C, Bayo, A, Danchi, W, Del Burgo, C, Ertel, S, Fridlund, M, González-García, B. M, Heras, A. M, Lebreton, J, Liseau, R, Maldonado, J, Meeus, G, Montes, D, Pilbratt, G. L, Roberge, A, Sanz-Forcada, J, Stapelfeldt, K, Thébault, P, White, G. J, & Wolf, S. (2011). Herschel discovery of a new class of cold, faint debris discs. *Astronomy and Astrophysics*, 536, 4. <http://hdl.handle.net/2268/109545>

**Absil, O**, Le Bouquin, J.-B, Berger, J.-P, Lagrange, A.-M, Chauvin, G, Lazareff, B, Zins, G, Haguenauer, P, Jocou, L, Kern, P, Millan-Gabet, R, Rochat, S, & Traub, W. (2011). Searching for faint companions with VLTI/PIONIER. I. Method and first results. *Astronomy and Astrophysics*, 535, 68. <http://hdl.handle.net/2268/109531>

Le Bouquin, J.-B, Berger, J.-P, Lazareff, B, Zins, G, Haguenauer, P, Jocou, L, Kern, P, Millan-Gabet, R, Traub, W, **Absil, O**, Augereau, J.-C, Benisty, M, Blind, N, Bonfils, X, Bourget, P, Delboulbe, A, Feautrier, P, Germain, M, Gitton, P, Gillier, D, Kiekebusch, M, Kluska, J, Knudstrup, J, Labeye, P, Lizon, J.-L, Monin, J.-L, Magnard, Y, Malbet, F, Maurel, D, Ménard, F, Micallef, M, Michaud, L, Montagnier, G, Morel, S, Moulin, T, Perraut, K, Popovic, D, Rabou, P, Rochat, S, Rojas, C, Roussel, F, Roux, A, Stadler, E, Stefl, S, Tatulli, E, & Ventura, N. (2011). PIONIER: a 4-telescope visitor instrument at VLTI. *Astronomy and Astrophysics*, 535, 67. <http://hdl.handle.net/2268/109532>

Adami, C, Mazure, A, Pierre, M, Sprimont, P.-G, Libbrecht, C, Pacaud, F, Clerc, N, Sadibekova, T, **Surdej, J**, Altieri, B, Duc, P. A, Galaz, G, Gueguen, A, Guennou, L, Hertling, G, Ilbert, O, LeFèvre, J. P, Quintana, H, Valtchanov, I, Willis, J. P, Akiyama, M, Aussel, H, Chiappetti, L, Detal, A, Garilli, B, LeBrun, V, LeFèvre, O, Maccagni, D, Melin, J. B, Ponman, T. J, **Ricci, D**, & Tresse, L. (2011). The XMM-LSS survey: optical assessment and properties of different X-ray selected cluster classes. *Astronomy and Astrophysics*, 526(A18), 36. <http://hdl.handle.net/2268/77677>

Payez, A, Cudell, J.-R, & **Hutsemekers, D**. (2011). Can axion-like particles explain the alignments of the polarisations of light from quasars? *Physical Review. D : Particles and Fields*, 84, 085029. <http://hdl.handle.net/2268/95422>

Karachentseva, V. E, Karachentsev, I. D, & **Melnik, O.** (2011). Faint companions of isolated 2MIG galaxies. *Astrophysical Bulletin*, 66, 389-406.

<http://hdl.handle.net/2268/110772>

Defrère, D, **Absil, O**, Augereau, J.-C, di Folco, E, Berger, J.-P, Coudé Du Foresto, V, Kervella, P, Le Bouquin, J.-B, Lebreton, J, Millan-Gabet, R, Monnier, J. D, Olofsson, J, & Traub, W. (2011). Hot exozodiacal dust resolved around Vega with IOTA/IONIC. *Astronomy and Astrophysics*, 534, 5.

<http://hdl.handle.net/2268/109527>

Mawet, D, Mennesson, B, Serabyn, E, Stapelfeldt, K, & **Absil, O.** (2011). A Dim Candidate Companion to epsilon Cephei. *Astrophysical Journal Letters*, 738, 12.

<http://hdl.handle.net/2268/109535>

Jehin, E, Gillon, M, Queloz, D, Magain, P, Manfroid, J, Chantry, V, Lendl, M, **Hutsemekers, D**, & Udry, S. (2011). TRAPPIST: TRAnsiting Planets and PlanetesImals Small Telescope. *The Messenger*, 145, 2-6.

<http://hdl.handle.net/2268/99971>

Mennesson, B, Serabyn, E, **Hanot, C**, Martin, S, Liewer, K, & Mawet, D. (2011). New Constraints on Companions and Dust within a Few AU of Vega. *Astrophysical Journal*, 736, 14.

<http://hdl.handle.net/2268/98689>

Blind, N, **Absil, O**, Le Bouquin, J.-B, Berger, J.-P, & Chelli, A. (2011). Optimized fringe sensors for the VLTI next generation instruments. *Astronomy and Astrophysics*, 530, 121.

<http://hdl.handle.net/2268/109575>

Meech, K. J, ...., **Hutsemekers, D**, ... et al. (2011). EPOXI: Comet 103P/Hartley 2 Observations from a Worldwide Campaign. *Astrophysical Journal*, 734, 1.

<http://hdl.handle.net/2268/95417>

Marshall, J. P, Löhne, T, Montesinos, B, Krivov, A. V, Eiroa, C, **Absil, O**, Bryden, G, Maldonado, J, Mora, A, Sanz-Forcada, J, Ardila, D, Augereau, J.-C, Bayo, A, Del Burgo, C, Danchi, W, Ertel, S, Fedele, D, Fridlund, M, Lebreton, J, González-García, B. M, Liseau, R, Meeus, G, Müller, S, Pilbratt, G. L, Roberge, A, Stapelfeldt, K, Thébault, P, White, G. J, & Wolf, S. (2011). A Herschel resolved far-infrared dust ring around HD 207129. *Astronomy and Astrophysics*, 529, 117.

<http://hdl.handle.net/2268/109536>

Sluse, D, Schmidt, R, Courbin, F, **Hutsemekers, D**, Meylan, G, Eigenbrod, A, Anguita, T, Agol, E, & Wambsganss, J. (2011). Zooming into the broad line region of the gravitationally lensed quasar Q2237+0305 = the Einstein Cross: III. Determination of the size and structure of the CIV and CIII] emitting regions using microlensing. *Astronomy and Astrophysics*, 528, 100, pp. 1-16.

<http://hdl.handle.net/2268/80900>

**Hanot, C**, Mennesson, B, Martin, S, Liewer, K, Loya, F, Mawet, D, Riaud, P, **Absil, O**, & Serabyn, E. (2011). Improving Interferometric null depth measurements using statistical distributions: theory and first results with the Palomar Fiber Nuller. *Astrophysical Journal*, 729(2), 110.

<http://hdl.handle.net/2268/85182>

Shinnaka, Y, Kawakita, H, Kobayashi, H, Jehin, E, Manfroid, J, **Hutsemekers, D**, & Arpigny, C. (2011). Ortho-to-para Abundance Ratio (OPR) of Ammonia in 15 Comets: OPRs of Ammonia Versus 14N/15N Ratios in CN. *Astrophysical Journal*, 729, 81, pp. 1-15.

<http://hdl.handle.net/2268/10367>

Groenewegen, M. A. T, Waelkens, C, Barlow, M. J, Kerschbaum, F, Garcia-Lario, P, Cernicharo, J, Blommaert, J. A. D. L, Bouwman, J, Cohen, M, Cox, N, Decin, L, Exter, K, Gear, W. K, Gomez, H. L, Hargrave, P. C, Henning, T, **Hutsemekers, D**, Ivison, R. J, Jorissen, A, Krause, O, Ladjal, D, Leeks, S. J, Lim, T. L, Matsura, M, Nazé, Y, Olofsson, G, Ottensamer, R, Polehampton, E, Posch, T, Rauw, G, Royer, P, Sibthorpe, B, Swinyard, B. M, Ueta, T, Vamvatira Nakou, C, Vandebussche, B, Van de Steene, G. C, Van Eck, S, van Hoof, P. A. M, Van Winckel, H, Verdugo, E, & Wesson, R. (2011). MESS (Mass-loss of Evolved StarS), a Herschel Key Program. *Astronomy and Astrophysics*, 526, 162, pp. 1-18.

<http://hdl.handle.net/2268/80899>

**Damerdji, Y, Delchambre, L**, Morel, T, Gosset, E, & Rauw, G. (2011). Spectroscopic binaries as observed by the future Gaia space mission. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 481.  
<http://hdl.handle.net/2268/82919>

**Kumar, B**, Manfroid, J, Gosset, E, Rauw, G, & Samal, M. R. (2011). A photometric study of the Carina nebula region around WR 22. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 386-390.  
<http://hdl.handle.net/2268/82973>

Karachentsev, I. D, Makarov, D. I, Karachentseva, V. E, & **Melnyk, O**. (2011). Catalog of nearby isolated galaxies in the volume  $z < 0.01$ . *Astrophysical Bulletin*, 66, 1-27.  
<http://hdl.handle.net/2268/110775>

Nazé, Y, **Damerdji, Y**, Rauw, G, Kiminki, D. C, Mahy, L, Kobulnicky, H. A, Morel, T, De Becker, M, Eenens, P, & Barbieri, C. (2011). A first orbital solution for the non-thermal radio emitter Cyg OB2 #9. *Bulletin de la Société Royale des Sciences de Liège*, 80, 709-713.  
<http://hdl.handle.net/2268/34176>

Vamvatira Nakou, C, Royer, P, **Hutsemekers, D**, Rauw, G, Nazé, Y, Exter, K, Waelkens, C, & Groenewegen, M. (2011). Herschel-PACS observations of Nebulae Ejected by Massive Stars. *Bulletin de la Société Royale des Sciences de Liège*, 80, 435-439.  
<http://hdl.handle.net/2268/82819>

**Ricci, D, Poels, J, Elyiv, A, Finet, F**, Sprimont, P.-G, Anguita, T, Bozza, V, Browne, P, Burgdorf, M, Calchi Novati, S, Dominik, M, Dreizler, S, Glitrup, M, Grundahl, F, Harps\ oe, K, Hessman, F, Hinse, T. C, Hornstrup, A, Hundertmark, M, J\ orgensen, U. G, Liebig, C, Maier, G, Mancini, L, Masi, G, Mathiasen, M, Rahvar, S, Skottfelt, G. S. J, Snodgrass, C, Southworth, J, Teuber, J, Thöne, C. C, Wambisan\ß, J, Zimmer, F, Zub, M, & **Surdej, J.** (2011). Flux and color variations of the quadruply imaged quasar HE 0435-1223. *Astronomy and Astrophysics*, 528, 42-A49.  
<http://hdl.handle.net/2268/86486>

Southworth, J, Dominik, M, Jorgensen, U. G, Rahvar, S, Snodgrass, C, Alsubai, K, Bozza, V, Browne, P, Burgdorf, M, Calchi Novati, S, Dodds, P, Dreizler, S, **Finet, F**, Gerner, T, Hardis, S, Harpsoe, K, Hellier, C, Hinse, T. C, Hundertmark, M, Kains, N, Kerins, E, Liebig, C, Mancini, L, Mathiasen, M, Penny, M. T, Proft, S, **Ricci, D**, Sahu, K, Scarpetta, G, Schafer, S, Schonebeck, F, & **Surdej, J.** (2011). A much lower density for the transiting extrasolar planet WASP-7 (Research Note). *Astronomy and Astrophysics*, 527, 8.1-A8.5.  
<http://hdl.handle.net/2268/86416>

---

## In press

**Elyiv, A**, Clerc, N, Plionis, M, **Surdej, J**, Pierre, M, Basilakos, S, Chiappetti, L, Gandhi, P, Gosset, E, **Melnyk, O**, & Pacaud, F. Angular correlation functions of X-ray point-like sources in the full exposure XMM-LSS field. *Astronomy and Astrophysics*  
<http://hdl.handle.net/2268/110764>

Löhne, T, Augereau, J.-C, Ertel, S, Marshall, J. P, Eiroa, C, Mora, A, **Absil, O**, Stapelfeldt, K, Thébault, P, Bayo, A, Del Burgo, C, Danchi, W, Krivov, A. V, Lebreton, J, Letawe, G, Magain, P, Maldonado, J, Montesinos, B, Pilbratt, G. L, White, G. J, & Wolf, S. Modelling the huge, Herschel-resolved debris ring around HD 207129. *Astronomy and Astrophysics*  
<http://hdl.handle.net/2268/109563>

## Fundamental Interaction in Physics and Astrophysics

**Ivanov, I.** (2011). Colliding particles carrying non-zero orbital angular momentum. *Physical Review. D : Particles and Fields*, 83(9), 093001.

<http://hdl.handle.net/2268/107118>

**Ivanov, I., & Keus, V.** (2011). Frustrated symmetries in multi-Higgs-doublet models. *Physics Letters B*, 695(5), 459-462.

<http://hdl.handle.net/2268/82132>

**Ivanov, I., & Serbo, V.** (2011). Addendum to "Scattering of twisted particles: Extension to wave packets and orbital helicity". *Physical Review A*, 84(6), 065802.

<http://hdl.handle.net/2268/107120>

**Ivanov, I., & Serbo, V.** (2011). Scattering of twisted particles: Extension to wave packets and orbital helicity. *Physical Review A* 84(3) 033804.

<http://hdl.handle.net/2268/107119>

**Payez, A., Cudell, J.-R. & Hutsemekers, D.** (2011). Can axion-like particles explain the alignments of the polarisations of light from quasars? *Physical Review D : Particles and Fields*, 84, 085029.

<http://hdl.handle.net/2268/95422>

**Pedoux, S., Cugnon, J., Mancusi, D.**, Boudard, A., David, J.-C., & Leray, S. (2011). The extension of the INCL model for simulation of shielding in space. *Advances in Space Research*, 48(2), 383-389.

<http://hdl.handle.net/2268/97969>

**Mancusi, D., Boudard, A., Cugnon, J., David, J.-C., & Leray, S.** (2011). Influence of nuclear de-excitation on observables relevant for space exploration. *Advances in Space Research*, 47(7), 1194-1199.

<http://hdl.handle.net/2268/89399>

**S. Pedoux & J. Cugnon,** (2011), Extension of the Liège intranuclear cascade model at incident energies between 2 and 12 GeV. Aspects of pion production, *Nucl. Phys. A* 866, 16-36.

Yu. E. Titarenko, V. F. Batyaev, A. Yu. Titarenko, M. A. Butko, K. V. Pavlov, S. N. Florya, R. S. Tikhonov, V. M. Zhivun, A. V. Ignatyuk, S. G. Mashnik, S. Leray, A. Boudard, **J. Cugnon, D. Mancusi**, Y. Yariv, K. Nishihara, N. Matsuda, H. Kumawat, G. Mank, W. Gudowski, (2011) Measurement and simulation of the cross sections for nuclide production in 56Fe and natCr targets irradiated with 0.04- to 2.6-GeV protons, *Physics of Atomic Nuclei* 74, 523-536 [*Yadernaya Fizika* 74, 548-560].

Yu. E. Titarenko, V. F. Batyaev, A. Yu. Titarenko, M. A. Butko, K. V. Pavlov, S. N. Florya, R. S. Tikhonov, V. M. Zhivun, A. V. Ignatyuk, S. G. Mashnik, S. Leray, A. Boudard, **J. Cugnon, D. Mancusi**, Y. Yariv, K. Nishihara, N. Matsuda, H. Kumawat, G. Mank, W. Gudowsk (2011) Measurement and simulation of the cross sections for nuclide production in 93Nb and natNi targets irradiated with 0.04- to 2.6-GeV protons, *Physics of Atomic Nuclei* 74, 537-550 [*Yadernaya Fizika* 74, 561-573].

Yu E. Titarenko, V. F. Batyaev, A. Yu. Titarenko, M. A. Butko, K. V. Pavlov, S. N. Florya, R. S. Tikhonov, V. M. Zhivun, A. V. Ignatyuk, S. G. Mashnik, S. Leray, A. Boudard, **J. Cugnon, D. Mancusi**, Y. Yariv, K. Nishihara, N. Matsuda, H. Kumawat, G. Mank, W. Gudowski, (2011) Measurement and simulation of the cross sections for nuclide production in natW and 181Ta targets irradiated with 0.04- to 2.6-GeV protons, *Physics of Atomic Nuclei* 74, 551-572 (2011) [*Yadernaya Fizika* 74, 574-595].

Yu. E. Titarenko, V. F. Batyaev, A. Yu. Titarenko, M. A. Butko, K. V. Pavlov, S. N. Florya, R. S. Tikhonov, V. M. Zhivun, A. V. Ignatyuk, S. G. Mashnik, S. Leray, A. Boudard, **J. Cugnon**, **D. Mancusi**, Y. Yariv, K. Nishihara, N. Matsuda, H. Kumawat, G. Mank, W. Gudowski, (2011) Measurement and simulation of the cross sections for the production of  $^{148}\text{Gd}$  in thin natW and  $^{181}\text{Ta}$  targets irradiated with 0.4- to 2.6-GeV protons," *Physics of Atomic Nuclei* 74, 573-579 [*Yadernaya Fizika*, 74, 596-603].

**J. Cugnon**, (2011) The Photon Wave Function, *Open Journal of Microphysics* 1, 41-52  
<http://www.SciRP.org/journal/ojm>

**D. Mancusi**, A. Boudard, **J. Cugnon**, J.-C. David, T. Gorbinet and S. Leray, (2011) Elusiveness of evidence for multifragmentation in 1-GeV proton-nucleus reactions, *Phys. Rev. C* 84, 064615 [19 pages].  
<http://arXiv.org/abs/1110.6343>

Yu. E. Titarenko, V. F. Batyaev, M. A. Butko, D. V. Dikarev, S. N. Florya, K. V. Pavlov, A. Yu. Titarenko, R. S. Tikhonov, V. M. Zhivun, A. V. Ignatyuk, S. G. Mashnik, A. Boudard, S. Leray, J.-C. David, **J. Cugnon**, **D. Mancusi**, Y. Yariv, H. Kumawat, K. Nishihara, N. Matsuda, G. Mank and W. Gudowski (2011) Verification of high-energy transport codes on the basis of activation data, *Phys. Rev. C* 84, 064612 [19p].  
<http://arXiv.org/abs/1106.0054>

N. Matagne & **Fl. Stancu**, (2011) SU(6) [70, 1 $^-$ ] baryon multiplet in the 1/Nc expansion, *Phys. Rev. D* 83: 056007, 1-13.  
<http://arxiv.org/abs/1101.5304>

N. Matagne & **Fl. Stancu**, (2011) Negative parity baryons in the 1/Nc expansion: The quark excitation versus the meson-nucleon resonance picture, *Phys. Rev. D* 84: 056013, 1-9.  
<http://arxiv.org/abs/1106.4992>

**J.R. Cudell, A. Dechambre** & O.F. Hernández (2011) Higgs Central Exclusive Production, *Phys. Lett. B* 706 333-339.  
<http://arXiv.org/abs/1011.3653>

**D. Aristizabal Sierra** and C. E. Yaguna (2011), On the importance of the 1-loop finite corrections to seesaw neutrino masses," *JHEP* 1108, 013  
[http://arxiv.org/abs/1106.3587.](http://arxiv.org/abs/1106.3587)

F.D. Aaron, ... **F.A. Ceccopieri** et al. [H1 Collaboration] (2011) Search for First Generation Leptoquarks in ep Collisions at HERA, *Phys. Lett. B* 704, 388.  
<http://arxiv.org/abs/1107.3716>

F.D. Aaron, ... **F.A. Ceccopieri** et al [H1 Collaboration] (2011) Search for Contact Interactions in e $\pm$ p Collisions at HERA, *Phys. Lett. B* 705, 52.  
<http://arXiv.org/abs/1107.2478>

F.D. Aaron, ... **F.A. Ceccopieri** et al. [H1 Collaboration] (2011) Search for lepton flavour violation at HERA, *Phys. Lett. B* 701, 20.

F.D. Aaron ... **F. A. Ceccopieri** et al. [H1 Collaboration] (2011) Measurement of Photon Production in the Very Forward Direction in Deep-Inelastic Scattering at HERA, *Eur. Phys. J. C* 71, 1771.  
<http://arXiv.org/abs/1106.5944>

F.D. Aaron ... **F. A. Ceccopieri** et al. [H1 Collaboration] (2011) Measurement of  $D^*\pm$  Meson Production and Determination of  $F_{2\bar{c}c\bar{b}}$  at low  $Q^2$  in Deep-Inelastic Scattering at HERA, *Eur. Phys. J. C* 71, 1769  
<http://arXiv.org/abs/1106.1028>.

F.D. Aaron ... **F. A. Ceccopieri** et al. [H1 Collaboration] (2011) Measurement of the Inclusive e $\pm$ p Scattering Cross Section at High Inelasticity and of the Structure Function  $F_L$ , *Eur. Phys. J. C* 71, 1579.  
<http://arXiv.org/abs/1012.4355>

**F. A. Ceccopieri** (2011) Associated production of one particle and a Drell-Yan pair in hadronic collisions, *Phys. Lett. B* 703, 491.

<http://arXiv.org/abs/1012.0507>

**F. A. Ceccopieri** (2011) An update on the evolution of double parton distributions, *Phys. Lett. B* 697, 482.

<http://arXiv.org/abs/1011.6586>

F.D. Aaron ... **F.A. Ceccopieri** et al. [H1 Collaboration] (2011) Search for Squarks in R-parity Violating Supersymmetry in ep Collisions at HERA, *Eur. Phys. J. C* 71, 1572.

<http://arXiv.org/abs/1011.6359>

F.D. Aaron ... **F.A. Ceccopieri** et al. [H1 Collaboration] (2011) Measurement of the cross section for diffractive deep-inelastic scattering with a leading proton at HERA, *Eur. Phys. J. C* 71, 1578.

<http://arXiv.org/abs/1010.1476>

Adrián-Martínez, S., ... **A. Meli** et al. [The ANTARES Collaboration] (2011) First Search for Point Sources of High-energy Cosmic Neutrinos with the ANTARES Neutrino Telescope, *The Astrophysical Journal*, 743L, 14

<http://arXiv.org/abs/1108.0292>

M. Ageron, ... **A. Meli** et al. [The ANTARES Collaboration] (2011) ANTARES: The first undersea neutrino telescope, *Nucl. Instr. Methods in Physics Research A*, 656, 11-38.

<http://arXiv.org/abs/1104.1607>

**A. Meli** (2011) Diffusive and Shock-Drift Acceleration in Relativistic Shocks, *Few-Body Systems*, 125, 0.1007/s00601-011-0254-5.

P.L. Biermann, J.K. Becker, L.I. Caramete, F. Fraschetti, T. Kneiske, **A. Meli**, T. Stanev (2011) Photon and neutrino emission from active galactic nuclei, *Nucl. Phys. B* 217, 284-286.

<http://arXiv.org/abs/1012.0204>

**A. Meli** (2011) Numerical modeling of relativistic particle shock acceleration, *Astrophysics and Space Sciences Transactions* 7, 287-294.

J.A. Aguilar, ... **A. Meli** et al. [The ANTARES Collaboration] (2011) A fast algorithm for muon track reconstruction and its application to the ANTARES neutrino telescope, *Astroparticle Physics* 34, 652-662.

<http://arXiv.org/abs/1105.4116>

J.K. Becker, **A. Meli**, P.L. Biermann (2011) Neutrinos from photo-hadronic interactions in Pks2155-304, *Nucl. Instr. Methods in Physics Research Section A*, 630, 269-272.

<http://arXiv.org/abs/0907.4284>

**A. Meli**, J.K. Becker, J.J. Quenby (2011) Active Galactic Nuclei and Gamma Ray Bursts: Relativistic shocks and the origin of ultra high energy cosmic rays, *Nucl. Instr. Methods in Physics Research Section A* 630, 95-98

J.A. Aguilar, ...**A. Meli** et al. [The ANTARES Collaboration], Search for a diffuse flux of high-energy neutrinos with the ANTARES neutrino telescope, *Phys. Lett. B* 696, 16-22.

<http://arXiv.org/abs/1011.3772>

P.L. Biermann, J.K. Becker, J. Dreyer, **A. Meli**, E.S. Seo, T. Stanev (2011) The Origin of Cosmic Rays: Explosions of Massive Stars with Magnetic Winds and Their Supernova Mechanism, *The Astrophysical Journal* 725, 184-187.

<http://arXiv.org/abs/1009.5592>

**J. Cugnon**, A. Boudard, S. Leray & **D. Mancusi** (2011) New features of the INCL4 model for spallation reactions," in Proc. of the Int. Conf. on Nuclear data for Science and Technology 2010, *Journal of Korean Physical Society*, 59, 955 – 958.

**D. Mancusi**, A. Boudard, R. J. Charity, **J. Cugnon**, J.-C. David, S. Leray, A. Kelić-Heil & M.V. Ricciardi, (2011) Multifragmentation in reactions of 1-GeV protons with iron nuclei, in Proc. of the Int. Conf. on Nuclear data for Science and Technology 2010, *Journal of Korean Physical Society*, 59, 943 – 946

J.-C. David , A. Boudard , **J. Cugnon** , A. Kelić-Heil , S. Leray , **D. Mancusi** & M.V. Ricciardi (2011) INCL4.5 and Abla07 - Improved versions of the intranuclear cascade (INCL4) and deexcitation (Abla) models, proc. of the meeting "Shielding Aspects of Accelerators, Targets and Irradiation Facilities - SATIF10", CERN, June 2010, *OECD Publishing*, ISBN: 9789264034679, 413-419.

**J. Cugnon**, A. Boudard, J.-C. David, A. Kelic-Heil, S. Leray, **D. Mancusi** and M. V. Ricciardi (2011) Production of heavy clusters (up to A=10) by coalescence during the intranuclear cascade phase of spallation reactions, Proc. of the INPC Conference 2010, Vancouver, July 2010, *J. Phys.: Conf. Ser.* 312, 082019 (6 p.) doi: 10.1088/1742-6596/312/8/082019.

J.-C. David, A. Boudard, **J. Cugnon**, A. Kelić-Heil, S. Leray, **D. Mancusi** & M. V. Ricciardi (2011) Spallation modeling- What's new on nuclei production with INCL4.5-Abla07?, proceedings of the CRISM11 Conference, Montpellier, France, *Memorie della Società Astronomica Italiana*, 82, 09-912.

N. Matagne and **Fl. Stancu** (2011) Negative parity nonstrange baryons in large Nc QCD: quark excitations versus meson-nucleon scattering, Proceedings of the Bled Workshop on Understanding Hadronic Spectra, Bled, Slovenia, edited by B. Golli, M. Rosina and S. Sirca, *Bled Workshops in Physics* (DMFA, Zalonistvo, Ljubljana) 12, No. 1, 57-63.

<http://arXiv.org/abs/1112.5061>

**D. Mancusi**, R. J. Charity & **J. Cugnon** (2011) Constraining statistical-model parameters using fusion and spallation reactions," proc. of the Fusion11 Conference, St-Malo, France, 2-6 May 2011, *EPJ Web of Conferences* 17, 10003 [4 p.]

**A. Courtoy** (2011) The role of the running coupling constant in the unveiling of the hadronic structure, proceedings of the International Workshop on QCD Green's Functions, Confinement and Phenomenology, September 05-09, 2011, Trento, Italy, *Pos (QCD-TNT-II)* 011

<http://arXiv.org/abs/1111.6096>

**I.P. Ivanov** (2011) High-energy physics with particles carrying non-zero orbital angular momentum," in the proceedings of the workshop "30 years of strong interactions", Spa, Belgium, 6-8 April 2011; *Few-Body Systems*, DOI: 10.1007/s00601-011-0248-3 (online first).

<http://arXiv.org/abs/1106.3209>

**D. Aristizabal Sierra** (2011) Neutrino masses beyond the tree level, in the proceedings of the workshop "30 years of strong interactions", Spa, Belgium, 6-8 April 2011; *Few-Body Systems*, DOI:10.1007/s00601-011-0281-2.

<http://arXiv.org/abs/1108.1120>

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## In press

Adrián-Martínez, S. ... **A. Meli** et al. [The ANTARES Collaboration] Search for Neutrino Emission from Gamma-Ray Flaring Blazars with the ANTARES Telescope, *Astroparticle Physics*  
<http://arXiv.org/abs/1111.3473>

M. Ageron, ... **A. Meli** et al. [The ANTARES Collaboration] The ANTARES Telescope Neutrino Alert System, *Astroparticle Physics*.  
<http://arXiv.org/abs/1103.4477>

**A. Meli** & P. L. Biermann, Active Galactic Nuclei Jets and Multiple Shock Acceleration: Depleted Spectra, *International Cosmic Ray Conference 2011*.

J.A. Aguilar, ... **A. Meli** et al. [The ANTARES Collaboration] A method for detection of muon induced electromagnetic showers with the ANTARES detector, *Nucl. Instrum. Meth. A.*  
<http://arXiv.org/abs/1106.0426>

## High Energy Astrophysics

Claeskens, J.-F, **Gosset, E**, **Nazé, Y**, **Rauw, G**, & **Vreux, J.-M.** (2011). A search for X-ray sources around WR 22 in the Carina region. *Astronomy and Astrophysics*, 525, 142.

<http://hdl.handle.net/2268/80992>

Damerdji, Y, Delchambre, L, **Morel, T**, **Gosset, E**, & **Rauw, G.** (2011). Spectroscopic binaries as observed by the future Gaia space mission. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 481. <http://hdl.handle.net/2268/82919>

**De Becker, M**, Le Coroller, H, & Dejonghe, J. (2011). Prospects for the multiplicity investigation of massive stars with the CARLINA interferometer. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 486-490.

<http://hdl.handle.net/2268/82961>

**De Becker, M**, McSwain, M. V, & Aragona, C. (2011). First results on the optical campaign devoted to the gamma-ray binary candidate HD259440. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 648-652.

<http://hdl.handle.net/2268/82964>

**De Becker, M**, Pittard, J. M, Williams, P, & WR140, C. (2011). The XMM-Newton view of the X-ray spectrum of WR140 across periastron passage. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 653-657.

<http://hdl.handle.net/2268/82965>

Fauchez, T, **De Becker, M**, & **Nazé, Y.** (2011). The X-ray emission of the colliding wind binary V444 Cyg. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 673-677.

<http://hdl.handle.net/2268/82823>

**Gosset, E**, **De Becker, M**, **Nazé, Y**, Carpano, S, **Rauw, G**, Antokhin, I. I, **Vreux, J.-M**, & Pollock, A. M. T. (2011). XMM-Newton observation of the enigmatic object WR 46. *Astronomy and Astrophysics*, 527, 66.

<http://hdl.handle.net/2268/56760>

**Gosset, E**, Sana, H, **Rauw, G**, & **Nazé, Y.** (2011). The X-ray emission of the WR+O binary WR 79. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 683-688.

<http://hdl.handle.net/2268/82818>

**Hervé, A**, Hastanin, J, Habraken, S, & **Rauw, G.** (2011). Study of a possible X-ray sensor based on the Plasmon Surface Resonance for the next generation of instruments. *Bulletin de la Société Royale des Sciences de Liège*, 80, 500-503.

<http://hdl.handle.net/2268/82849>

**Hervé, A**, & **Rauw, G.** (2011). Effects of porosity on emergent synthetic spectra of massive stars in the X-ray domain. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 155-159.

<http://hdl.handle.net/2268/82920>

Hubrig, S, Ilyin, I, Briquet, M, Schöller, M, González, J. F, Nuñez, N, De Cat, P, & **Morel, T.** (2011). The strong magnetic field of the large-amplitude  $\beta$  Cephei pulsator V1449 Aquilae. *Astronomy and Astrophysics*, 531, 20.

<http://hdl.handle.net/2268/108682>

**Mahy, L, Gosset, E, Baudin, F, Rauw, G, Godart, M, Morel, T, Degroote, P, Aerts, C, Blomme, R, Cuypers, J, Noels-Grötsch, A, Michel, E, Baglin, A, Auvergne, M, Catala, C, & Samadi, R.** (2011). Plaskett's star: analysis of the CoRoT photometric data. *Astronomy and Astrophysics*, 525, 101.  
<http://hdl.handle.net/2268/83603>

**Mahy, L, Rauw, G, Martins, F, Gosset, E, Nazé, Y, Godart, M, Sana, H, De Becker, M, & Eenens, P.** (2011). The multiplicity of O-type stars in NGC 2244. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 622-627.  
<http://hdl.handle.net/2268/36146>

**Mahy, L, Martins, F, Hillier, D. J, & Rauw, G.** (2011). A quantitative study of the O stars in NGC2244. *Journal of Physics: Conference Series*, 328, 012024.  
<http://hdl.handle.net/2268/110857>

**Mahy, L, Martins, F, Machado, C, Donati, J.-F, & Bouret, J.-C.** (2011). The two components of the evolved massive binary LZ Cephei. Testing the effects of binarity on stellar evolution. *Astronomy and Astrophysics*, 533, A9.  
<http://hdl.handle.net/2268/110856>

**Morel, T.** (2011). Mixing in magnetic OB stars. *Bulletin de la Société Royale des Sciences de Liège*, 80, 405.  
<http://hdl.handle.net/2268/81150>

**Morel, T, Rauw, G, Eversberg, T, Alves, F, Arnold, W, Bergmann, T, Correia Viegas, N. G, Fahed, R, Fernando, A, Gouveia Carreira, L. F, Hunger, T, Knapen, J. H, Leadbeater, R, Marques Dias, F, Moffat, A. F. J, Reinecke, N, Ribeiro, J, Romeo, N, Sanchez Gallego, J, Dossantos, E, Schanne, L, Stahl, O, Stober, B, Stober, B, Vollmann, K, Corcoran, M. F, Dougherty, S. M, Hamaguchi, K, Pittard, J. M, Pollock, A. M. T, & Williams, P. M.** (2011). The Mons campaign on OB stars. *Bulletin de la Société Royale des Sciences de Liège*, 80, 170.  
<http://hdl.handle.net/2268/81149>

**Morel, T, Miglio, A, & Valentini, M.** (2011). Using seismic targets as benchmarks for spectroscopic analyses of cool stars. *Journal of Physics: Conference Series [=JPCS]*, 328, 2010.  
<http://hdl.handle.net/2268/108859>

**Nazé, Y.** (2011). General X-ray properties of hot, massive stars. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 109-114.  
<http://hdl.handle.net/2268/82814>

**Nazé, Y, Broos, P. S, Oskinova, L, Townsley, L. K, Cohen, D, Corcoran, M. F, Evans, N. R, Gagné, M, Moffat, A. F. J, Pittard, J. M, Rauw, G, ud-Doula, A, & Walborn, N. R.** (2011). Global X-ray Properties of the O and B Stars in Carina. *Astrophysical Journal. Supplement Series*, 194, 7.  
<http://hdl.handle.net/2268/96671>

**Nazé, Y, Damerdji, Y, Rauw, G, Kiminki, D. C, Mahy, L, Kobulnicky, H. A, Morel, T, De Becker, M, Eenens, P, & Barbieri, C.** (2011). A first orbital solution for the non-thermal radio emitter Cyg OB2 #9. *Bulletin de la Société Royale des Sciences de Liège*, 80, 709-713.  
<http://hdl.handle.net/2268/34176>

**Palate, M, Rauw, G, Gosset, E, & Nazé, Y.** (2011). Massive binaries as seen with Gaia. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 504-508.  
<http://hdl.handle.net/2268/82821>

Parkin, E. R, & **Gosset, E.** (2011). Investigating the X-ray emission from the massive WR+O binary WR 22 using 3D hydrodynamical models. *Astronomy and Astrophysics*, 530, 119.  
<http://hdl.handle.net/2268/93744>

Parkin, E. R., Pittard, J. M., Corcoran, M. F., Hamaguchi, K., Stevens, I. R., **Gosset, E.**, **Rauw, G.**, & **De Becker, M.** (2011). 3D modelling of the massive star binary systems Eta Carinae, WR 22, and WR 140. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 610-615.  
<http://hdl.handle.net/2268/82963>

**Rauw, G.** (2011). A multi-epoch XMM-Newton campaign on the core of the massive Cygnus OB2 association. *Astronomy and Astrophysics*, 536, 31.  
<http://hdl.handle.net/2268/105089>

**Rauw, G.**, & Oschinova, L. (2011). Studying massive stars with the International X-ray Observatory. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 475-480.  
<http://hdl.handle.net/2268/82937>

**Rauw, G.**, Sana, H., & **Nazé, Y.** (2011). A spectroscopic investigation of early-type stars in the young open cluster Westerlund 2. *Astronomy and Astrophysics*, 535, 40.  
<http://hdl.handle.net/2268/105091>

Sana, H., James, G., & **Gosset, E.** (2011). The massive star binary fraction in young open clusters - III. IC 2944 and the Cen OB2 association. *Monthly Notices of the Royal Astronomical Society*, 416, 817-831.  
<http://hdl.handle.net/2268/109657>

**Vamvatira Nakou, C.**, Royer, P., Hutsemekers, D., **Rauw, G.**, **Nazé, Y.**, Exter, K., Waelkens, C., & Groenewegen, M. (2011). Herschel-PACS observations of Nebulae Ejected by Massive Stars. *Bulletin de la Société Royale des Sciences de Liège*, 80, 435-439.  
<http://hdl.handle.net/2268/82819>

Alecian, E., Kochukhov, O., Neiner, C., Wade, G. A., de Batz, B., Henrichs, H., Grunhut, J. H., Bouret, J.-C., Briquet, M., Gagne, M., **Nazé, Y.**, Oksala, M. E., Rivinius, T., Townsend, R. H. D., Walborn, N. R., Weiss, W., & Mimes, C. (2011). First HARPSpol discoveries of magnetic fields in massive stars. *Astronomy and Astrophysics*, 536, 6.  
<http://hdl.handle.net/2268/110677>

Baudin, F., Barban, C., Belkacem, K., Hekker, S., **Morel, T.**, Samadi, R., Benomar, O., Goupil, M.-J., Carrier, F., Ballot, J., Deheuvels, S., De Ridder, J., Hatzes, A. P., Kallinger, T., & Weiss, W. W. (2011). Amplitudes and lifetimes of solar-like oscillations observed by CoRoT. Red-giant versus main-sequence stars. *Astronomy and Astrophysics*, 529, A84  
<http://hdl.handle.net/2268/108395>

Blomme, R., **Mahy, L.**, Catala, C., Cuypers, J., **Gosset, E.**, Godart, M., Montalban Iglesias, J., Ventura, P., **Rauw, G.**, **Morel, T.**, Degroote, P., Aerts, C., Noels, A., Michel, E., Baudin, F., Baglin, A., Auvergne, M., & Samadi, R. (2011). Variability in the CoRoT photometry of three hot O-type stars. HD 46223, HD 46150, and HD 46966. *Astronomy and Astrophysics*, 533, 4.  
<http://hdl.handle.net/2268/98832>

Evans, N. R., DeGioia-Eastwood, K., Gagné, M., Townsley, L., Broos, P., Wolk, S., **Nazé, Y.**, Corcoran, M., Oschinova, L., Moffat, A. F. J., Wang, J., & Walborn, N. R. (2011). The Search for Low-mass Companions of B Stars in the Carina Nebula Cluster Trumpler 16. *Astrophysical Journal. Supplement Series*, 194, 13.  
<http://hdl.handle.net/2268/100588>

Fahed, R., Moffat, A. F. J., Zorec, J., Eversberg, T., Chené, A. N., Alves, F., Arnold, W., Bergmann, T., Corcoran, M. F., Correia Viegas, N. G., Dougherty, S. M., Fernando, A., Frémat, Y., Gouveia Carreira, L. F., Hunger, T., Knapen, J. H., Leadbeater, R., Marques Dias, F., Martayan, C., **Morel, T.**, Pittard, J. M., Pollock, A. M. T., **Rauw, G.**, Reinecke, N., Ribeiro, J., Romeo, N., Sánchez-Gallego, J. R., DOSSANTOS, E., Schanne, L., Stahl, O., Stober, B., Stober, B., Vollmann, K., & Williams, P. M. (2011). Spectroscopy of the archetype colliding-wind binary WR 140 during the 2009 January periastron passage. *Monthly Notices of the Royal Astronomical Society*, 418, 2-13.  
<http://hdl.handle.net/2268/105090>

Fahed, R, Moffat, A. F. J, Zorec, J, Eversberg, T, Chené, A. N, Alves, F, Arnold, W, Bergmann, T, Gouveia Carreira, L. F, Marques Dias, F, Fernando, A, Sanchez Gallego, J, Hunger, T, Knapen, J, Leadbeater, R, **Morel, T**, **Rauw, G**, Reinecke, N, Ribeiro, J, Romeo, N, Dossantos, E. M, Schanne, L, Stahl, O, Stober, B, Stober, B, Correia Viegas, N. G, Vollmann, K, Corcoran, M. F, Dougherty, S. M, Pittard, J. M, Pollock, A. M. T, & Williams, P. M. (2011). Spectroscopic follow-up of the colliding-wind binary WR140 during the 2009 January periastron passage. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 668-672.  
<http://hdl.handle.net/2268/82918>

Gagné, M, Fehon, G, Savoy, M. R, Cohen, D. H, Townsley, L. K, Broos, P. S, Povich, M. S, Corcoran, M. F, Walborn, N. R, Remage Evans, N, Moffat, A. F. J, **Nazé, Y**, & Oschinova, L. M. (2011). Carina OB Stars: X-ray Signatures of Wind Shocks and Magnetic Fields. *Astrophysical Journal. Supplement Series*, 194, 5.  
<http://hdl.handle.net/2268/99064>

Groenewegen, M. A. T, Waelkens, C, Barlow, M. J, Kerschbaum, F, Garcia-Lario, P, Cernicharo, J, Blommaert, J. A. D. L, Bouwman, J, Cohen, M, Cox, N, Decin, L, Exter, K, Gear, W. K, Gomez, H. L, Hargrave, P. C, Henning, T, Hutsemekers, D, Ivison, R. J, Jorissen, A, Krause, O, Ladjal, D, Leeks, S. J, Lim, T. L, Matsuura, M, **Nazé, Y**, Olofsson, G, Ottensamer, R, Polehampton, E, Posch, T, **Rauw, G**, Royer, P, Sibthorpe, B, Swinyard, B. M, Ueta, T, **Vamvatira Nakou, C**, Vandenbussche, B, Van de Steene, G. C, Van Eck, S, van Hoof, P. A. M, Van Winckel, H, Verdugo, E, & Wesson, R. (2011). MESS (Mass-loss of Evolved StarS), a Herschel Key Program. *Astronomy and Astrophysics*, 526, 162, pp. 1-18.  
<http://hdl.handle.net/2268/80899>

Hubrig, S, Ilyin, I, Schöller, M, Briquet, M, **Morel, T**, & De Cat, P. (2011). First Magnetic Field Models for Recently Discovered Magnetic beta Cephei and Slowly Pulsating B Stars. *Astrophysical Journal*, 726, 5.  
<http://hdl.handle.net/2268/81132>

Kumar, B, **Manfroid, J**, **Gosset, E**, **Rauw, G**, & Samal, M. R. (2011). A photometric study of the Carina nebula region around WR 22. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 386-390.  
<http://hdl.handle.net/2268/82973>

McSwain, M. V, **De Becker, M**, Roberts, M. S. E, & Boyajian, T. S. (2011). A Multiwavelength Study of the Runaway Binaries HD 14633 and HD 15137. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 565-571.  
<http://hdl.handle.net/2268/82962>

Meech, K. ..., P, **Manfroid, J**, ... & Ziffer, J. E. (2011). EPOXI: Comet 103P/Hartley 2 Observations from a Worldwide Campaign. *Astrophysical Journal*, 734, 1.  
<http://hdl.handle.net/2268/95417>

Pandey, C. P, **Morel, T**, Briquet, M, Jayakumar, K, Bisht, S, & Sanwal, B. B. (2011). A spectroscopic study of the hybrid pulsator Gamma Pegasi. *Communications in Asteroseismology*, 162, 21.  
<http://hdl.handle.net/2268/108452>

Parkin, E. R, Broos, P. S, Townsley, L. K, Pittard, J. M, Moffat, A. F. J, **Nazé, Y**, **Rauw, G**, Oschinova, L. M, & Waldron, W. L. (2011). X-ray Emission from the Double-binary OB-star System QZ Car (HD 93206). *Astrophysical Journal. Supplement Series*, 194, 8.  
<http://hdl.handle.net/2268/98169>

Rousselot, P, Jehin, E, **Manfroid, J**, Mousis, O, Dumas, C, Carry, B, Marboeuf, U, & Zucconi, J.-M. (2011), A Search for Water Vaporization on Ceres, *The Astronomical Journal*, 142, 125

Sana, H, Le Bouquin, J.-B, **De Becker, M**, Berger, J.-P, de Koter, A, & Mérand, A. (2011). The Non-thermal Radio Emitter HD 93250 Resolved by Long Baseline Interferometry. *Astrophysical Journal Letters*, 740, 43.  
<http://hdl.handle.net/2268/107154>

Shinnaka, Y, Kawakita, H, Kobayashi, H, Jehin, E, **Manfroid, J**, Hutsemekers, D, & Arpigny, C. (2011). Ortho-to-para Abundance Ratio (OPR) of Ammonia in 15 Comets: OPRs of Ammonia Versus 14N/15N Ratios in CN. *Astrophysical Journal*, 729, 81, pp. 1-15.  
<http://hdl.handle.net/2268/10367>

Sicardy, B, Ortiz, J. L, Assafin, M, Jehin, E, Maury, A, Lellouch, E, Hutton, R. G, Braga-Ribas, F, Colas, F, Hestroffer, D, Lecacheux, J, Roques, F, Santos-Sanz, P, Widemann, T, Morales, N, Duffard, R, Thirouin, A, Castro-Tirado, A. J, Jelínek, M, Kubánek, P, Sota, A, Sánchez-Ramírez, R, Andrei, A. H, Camargo, J. I. B, da Silva Neto, D. N, Gomes, A. R, Martins, R. V, Gillon, M, **Manfroid, J**, Tozzi, G. P, Harlingten, C, Saravia, S, Behrend, R, Mottola, S, Melendo, E. G, Peris, V, Fabregat, J, Madiedo, J. M, Cuesta, L, Eibe, M. T, Ullán, A, Organero, F, Pastor, S, de Los Reyes, J. A, Pedraz, S, Castro, A, de La Cueva, I, Muler, G, Steele, I. A, Cebrián, M, Montañés-Rodríguez, P, Oscoz, A, Weaver, D, Jacques, C, Corradi, W. J. B, Santos, F. P, Reis, W, Milone, A, Emilio, M, Gutiérrez, L, Vazquez Sabariego, R, & Hernández-Toledo, H. (2011). A Pluto-like radius and a high albedo for the dwarf planet Eris from an occultation. *Nature*, *478*, 493-496.

<http://hdl.handle.net/2268/107675>

Townsley, L. K, Broos, P. S, Chu, Y.-H, Gagné, M, Garmire, G. P, Gruendl, R. A, Hamaguchi, K, Mac Low, M.-M, Montmerle, T, **Nazé, Y**, Oey, M. S, Park, S, Petre, R, & Pittard, J. M. (2011). The Chandra Carina Complex Project: Deciphering the Enigma of Carina's Diffuse X-ray Emission. *Astrophysical Journal. Supplement Series*, *194*, 15.

<http://hdl.handle.net/2268/99082>

Townsley, L. K, Broos, P. S, Corcoran, M. F, Feigelson, E. D, Gagné, M, Montmerle, T, Oey, M. S, Smith, N, Garmire, G. P, Getman, K. V, Povich, M. S, Remage Evans, N, **Nazé, Y**, Parkin, E. R, Preibisch, T, Wang, J, Wolk, S. J, Chu, Y.-H, Cohen, D. H, Gruendl, R. A, Hamaguchi, K, King, R. R, Mac Low, M.-M, McCaughrean, M. J, Moffat, A. F. J, Osokinova, L. M, Pittard, J. M, Stassun, K. G, ud-Doula, A, Walborn, N. R, Waldron, W. L, Churchwell, E, Nichols, J. S, Owocki, S. P, & Schulz, N. S. (2011). An Introduction to the Chandra Carina Complex Project. *Astrophysical Journal. Supplement Series*, *194*, 1.

<http://hdl.handle.net/2268/99088>

Wade, G. A, Howarth, I. D, Townsend, R. H. D, Grunhut, J. H, Shultz, M, Bouret, J.-C, Fullerton, A, Marcolino, W, Martins, F, **Nazé, Y**, Ud Doula, A, Walborn, N. R, & Donati, J.-F. (2011). Confirmation of the magnetic oblique rotator model for the Of?p star HD 191612. *Monthly Notices of the Royal Astronomical Society*, *416*, 3160-3169.

<http://hdl.handle.net/2268/99761>

Jehin, E, Gillon, M, Queloz, D, Magain, P, **Manfroid, J**, Chantry, V, Lendl, M, Hutsemekers, D, & Udry, S. (2011). TRAPPIST: TRAnsiting Planets and PlanetesImals Small Telescope. *The Messenger*, *145*, 2-6.

<http://hdl.handle.net/2268/99971>

Bockelee-Morvan, D, Swinyard, B, Vandenbussche, B, Hartogh, P, Jehin, E, Hutsemekers, D, **Manfroid, J**, Biver, N, de Val-Borro, M, Crovisier, J, Küppers, M, Lis, D. C, Rengel, M, & Szutowicz, S. (2011, October 01). Herschel PACS and SPIRE Observations of comet 103P/Hartley 2. *EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France*. <A href="http://meetings.copernicus.org/epsc-dps2011">http://meetings.copernicus.org/epsc-dps2011</A>, p.231, 231.

<http://hdl.handle.net/2268/107052>

Braga-Ribas, F, Sicardy, B, Ortiz, J. L, Jehin, E, Camargo, J. I. B, Assafin, M, Behrend, R, Unda-Sanzana, E, Colque, J. P, Morales, N, Tancredi, G, RAMI, S, Bruzzone, S, Salvo, R, Almenares, L, Emilio, M, Schoenell, W, Gil-Hutton, R, Milone, A, Jacques, C, Vanzi, L, Kavelaars, J. J, Cacella, P, Maury, A, Alvarez, E, van der Bliek, N. S, Vieira-Martins, R, Colas, F, Lecacheux, J, Vachier, F, Roques, F, Widemann, T, Thirouin, A, Gillon, M, **Manfroid, J**, Bergengruen, A, Martinez, M, Capeche, J, Amorim, A, Pimentel, E, Leiva, R, Toledo, I, Almeida, L. A, Magalhães, V. S, Montaña, C. E, & Rodrigues, C. V. (2011, October 01). Stellar Occultations by TNOs: the January 08, 2011 by (208996) 2003 AZ84 and the May 04, 2011 by (50000) Quaoar. *EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France*. <A href="http://meetings.copernicus.org/epsc-dps2011">http://meetings.copernicus.org/epsc-dps2011</A>, p.1060, 1060.

<http://hdl.handle.net/2268/107658>

Crovisier, J, Bockelée-Morvan, D, Biver, N, Hartogh, P, Hutsemekers, D, Jehin, E, Küppers, M, Lis, D. C, **Manfroid, J**, Rengel, M, Swinyard, B, Szutowicz, S, de Val-Borro, M, & Vandenbussche, B. (2011, October 01). Observations of the rotational lines of OH in comets with the Herschel Space Observatory. *EPSC Abstracts*, 436.

<http://hdl.handle.net/2268/107050>

Decock, A., Jehin, E., **Manfroid, J.**, & Hutsemekers, D. (2011, October 01). Study of the forbidden oxygen lines in a dozen comets observed at the VLT (ESO). *EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France.* <A href="http://meetings.copernicus.org/epsc-dps2011"><http://meetings.copernicus.org/epsc-dps2011></A>, p.1126, 1126.  
<http://hdl.handle.net/2268/107047>

Fahed, R., Moffat, A. F. J., Zorec, J., Eversberg, T., Chené, A. N., Alves, F., Arnold, W., Bergmann, T., Gouveia Carreira, L. F., Marques Dias, F., Fernando, A., Sanchez Gallego, J., Hunger, T., Knapen, J. H., Leadbeater, R., **Morel, T.**, **Rauw, G.**, Reinecke, N., Ribeiro, J., Romeo, N., dos Santos, E. M., Schanne, L., Stahl, O., Stober, B., Stober, B., Correia Viegas, N. G., Vollmann, K., Corcoran, M. F., Dougherty, S. M., Pittard, J. M., Pollock, A. M. T., & Williams, P. M. (2011). The WR 140 periastron passage 2009: first results from MONS and other optical sources. In T., Eversberg & J., Knapen (Eds.), *Stellar Winds in Interaction* (pp. 1430).  
<http://hdl.handle.net/2268/96670>

Fahed, R., Moffat, A. F. J., Zorec, J., Eversberg, T., Chené, A.-N., Alves, F., Arnold, W., Bergmann, T., Carreira, L. F. G., Dias, F. M., Fernando, A., Gallego, J. S., Hunger, T., Knapen, J. H., Leadbeater, R., **Morel, T.**, **Rauw, G.**, Reinecke, N., Ribeiro, J., Romeo, N., dos Santos, E. M., Schanne, L., Stahl, O., Stober, B., Stober, B., Viegas, N. G. C., Vollmann, K., Corcoran, M. F., Dougherty, S. M., Pittard, J. M., Pollock, A. M. T., & Williams, P. M. (2011). Spectroscopic follow-up of the colliding-wind binary WR 140 during the 2009 January periastron passage. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 501-502).  
<http://hdl.handle.net/2268/97141>

Ferrando, P., Goldwurm, A., Laurent, P., Limousin, O., Beckmann, V., Arnaud, M., Barcons, X., Bomans, D., Caballero, I., Carrera, F., Chaty, S., Chenevez, J., Chipaux, R., Christensen, F., Claret, A., Corbel, S., Croston, J., Daddi, E., **De Becker, M.**, Decourchelle, A., Elbaz, D., Falanga, M., Ferrari, C., Feruglio, C., Götz, D., Gouiffès, C., Hailey, C., Hernanz, M., Kreykenbohm, I., Malzac, J., Martignac, J., Mattana, F., Meuris, A., Miniutti, G., Nalewajko, K., Negueruela, I., O'Dell, S., Paltani, S., Petre, R., Petrucci, P.-O., Pierre, M., Pinsard, F., Ponti, G., **Rauw, G.**, Rea, N., Renaud, M., Robert, J.-L., Rodriguez, J., Rozanska, A., Santangelo, A., Sauvageot, J.-L., Soldi, S., Tagger, M., Tenzer, C., Terrier, R., Trap, G., Varnière, P., Wilms, J., Zhang, W., & Zurita Heras, J. (2011). The COSPIX mission: focusing on the energetic and obscured Universe. In F., Rieger & C., van Eldik (Eds.), *25th Texas Symposium on Relativistic Astrophysics* (pp. 1544).  
<http://hdl.handle.net/2268/88727>

Gagné, M., Fehon, G., Savoy, M. R., Cohen, D. H., Townsley, L. K., Broos, P. S., Povich, M. S., Corcoran, M. F., Walborn, N. R., Moffat, A. F. J., **Nazé, Y.**, & Oskinova, L. M. (2011). The Chandra survey of Carina OB stars. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 608-609).  
<http://hdl.handle.net/2268/99042>

Gillon, M., Jehin, E., Magain, P., Chantry, V., Hutsemekers, D., **Manfroid, J.**, Queloz, D., & Udry, S. (2011). TRAPPIST: a robotic telescope dedicated to the study of planetary systems. *EPJ Web of Conferences*, 11, 06002.  
<http://hdl.handle.net/2268/87131>

Groenewegen, M. A. T., Waelkens, C., Barlow, M. J., Kerschbaum, F., Garcia-Lario, P., Cernicharo, J., Blommaert, J. A. D. L., Bouwman, J., Cohen, Cox, N., Decin, L., Exter, K., Gear, W. K., Gomez, H. L., Hargrave, P. C., Henning, T., Hutsemekers, D., Ivison, R. J., Jorissen, A., Krause, O., Ladjal, D., Leeks, S. J., Lim, T. L., Matsuura, M., **Nazé, Y.**, Olofsson, G., Ottensamer, R., Polehampton, E., Posch, T., **Rauw, G.**, Royer, P., Sibthorpe, B., Swinyard, B. M., Ueta, T., **Vamvatira Nakou, C.**, Vandenbussche, B., van de Steene, G. C., van Eck, S., van Hoof, P. A. M., van Winckel, H., Verdugo, E., Wesson, R., Lebzelter, T., & Wing, R. F. (2011). Results from the Herschel Key Program MESS. In F., Kerschbaum, T., Lebzelter, & R. F., Wing (Eds.), *Why Galaxies Care about AGB Stars II: Shining Examples and Common Inhabitants* (pp. 567-575). San Francisco: Astronomical Soc Pacific.  
<http://hdl.handle.net/2268/105220>

**Hervé, A.**, & Bouret, J.-C. (2011). About the Luminous Blue Variable He3-519, In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 87-88).

Jehin, E, Hutsemekers, D, **Manfroid, J**, Decock, A, Weiler, M, Kawakita, H, Shinnaka, Y, Hashimoto, M, Bockelée-Morvan, D, Biver, N, Crovisier, J, & Hartog, P. (2011, October 01). A Multi-wavelength study with the ESO VLT of comet 103P/Hartley2 at the time of the EPOXI encounter. *EPSC Abstracts*, 1463. <http://hdl.handle.net/2268/107046>

Jehin, E, **Manfroid, J**, Hutsemekers, D, Gillon, M, & Magain, P. (2011, October 01). Long term photometric monitoring of comet 103P/Hartley2 with the new robotic TRAPPIST telescope. *EPSC Abstracts*, 1489. <http://hdl.handle.net/2268/107045>

Katz, D, Cropper, M, Meynadier, F, Jean-Antoine, A, Allende Prieto, C, Baker, S, Benson, K, Berthier, J, Bigot, L, Blomme, R, Boudreault, S, Chemin, L, Crifo, F, Damerdji, Y, LACHAUSSEE, M.-C, David, P, Delle Luche, C, Dolding, C, Frémat, Y, Gerbier, N, Gerssen, J, Gómez, A, **Gosset, E**, Guerrier, A, Guy, L, Hall, D, Hestroffer, D, Huckle, H, Jasniewicz, G, Ludwig, H.-G, Martayan, C, **Morel, T**, Nguyen, A.-T, Ocvirk, P, Parr, C, Royer, F, Sartoretti, P, Seabroke, G, SIMON, E, Smith, M, Soubiran, C, Steinmetz, M, Thévenin, F, Turon, C, Udry, S, Veltz, L, & Viala, Y. (2011). Gaia spectroscopy: processing, performances and scientific returns. *EAS Publication Series* (EDP Sciences, pp. 189-194). EAS. <http://hdl.handle.net/2268/109334>

**Mahy, L, Gosset, E**, Sana, H, **Rauw, G**, Fauchez, T, & Nitschelm, C. (2011). HD 150136: towards one of the most massive systems? In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 521-522). <http://hdl.handle.net/2268/97136>

**Morel, T.** (2011). Mixing in two magnetic OB stars discovered by the MiMeS collaboration. *IAU Symposium 272: Active OB Stars: Structure, Evolution, Mass Loss and Critical Limits* (pp. 97). <http://hdl.handle.net/2268/81137>

**Morel, T, Rauw, G**, Eversberg, T, Alves, F, Arnold, W, Bergmann, T, Viegas, N. G. C, Fahed, R, Fernando, A, Carreira, L. F. G, Hunger, T, Knapen, J. H, Leadbeater, R, Dias, F. M, Moffat, A. F. J, Reinecke, N, Ribeiro, J, Romeo, N, Gallego, J. S, dos Santos, E. M, Schanne, L, Stahl, O, Stober, B, Stober, B, Vollmann, K, Corcoran, M. F, Dougherty, S. M, Hamaguchi, K, Pittard, J. M, Pollock, A. M. T, & Williams, P. M. (2011). Variability monitoring of OB stars during the Mons campaign. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 414-415). <http://hdl.handle.net/2268/81145>

**Nazé, Y.** (2011). Overall properties of hot, massive stars in the X-ray domain. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 622-623). <http://hdl.handle.net/2268/99043>

**Nazé, Y, Rauw, G**, & ud-Doula, A. (2011). The surprising X-ray emission of Oe stars. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 624-625). <http://hdl.handle.net/2268/97149>

**Nazé, Y**, ud-Doula, A, Spano, M, **Rauw, G, De Becker, M**, & Walborn, N. R. (2011). The latest developments on Of?p stars. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 626-627). <http://hdl.handle.net/2268/97152>

Ortiz, J. L, Sicardy, B, Assafin, M, Alvarez-Candal, A, Ivanov, V. D, Camargo, J, Littlefair, S, Unda-Sanzana, E, Jehin, E, Braga-Ribas, F, Lellouch, E, Morales, N, Licandro, J, Gil-Hutton, R, Duffard, R, Colque, J. P, Tancredi, G, **Manfroid, J**, Thirouin, A, Lecacheux, J, Gillon, M, Maury, A, Colas, F, Jaques, C, Weaver, D, Milone, A, Salvo, S, Bruzzone, S, Organero, F, Behrend, R, RAMI, S, Vieira-Martins, R, Widemann, T, Roques, F, Santos-Sanz, P, & Hestroffer, D. (2011, October 01). The stellar occultation by Makemake on 2011 April 23. *EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France. <A href="http://meetings.copernicus.org/epsc-dps2011">http://meetings.copernicus.org/epsc-dps2011</A>*, p.704, 704. <http://hdl.handle.net/2268/107657>

**Rauw, G, & Morel, T.** (2011). The mysterious high-latitude O-star HD 93521: new results from XMM-Newton observations. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 612-613).

<http://hdl.handle.net/2268/97147>

Rousselot, P., Jehin, E., **Manfroid, J.**, & Hutsemekers, D. (2011, October 01). 12C2/12C13C isotopic ratio in comets C/2001 Q4(NEAT) and C/2002 T7 (LINEAR). *EPSC Abstracts*, 602.

<http://hdl.handle.net/2268/107048>

Sicardy, B., Ortiz, J. L., Assafin, M., Jehin, E., Maury, A., Lellouch, E., Gil-Hutton, R., Braga-Ribas, F., Colas, F., Lecacheux, J., Roques, F., Santos-Sanz, P., Morales, N., Thirouin, A., Camargo, J. I. B., Vieira-Martins, R., Gillon, M., **Manfroid, J.**, Behrend, R., & Widemann, T. (2011, October 01). Size, density, albedo and atmosphere limit of dwarf planet Eris from a stellar occultation. *EPSC-DPS Joint Meeting 2011, held 2-7 October 2011 in Nantes, France.* <A href="http://meetings.copernicus.org/epsc-dps2011">http://meetings.copernicus.org/epsc-dps2011</A>, p.137, 137.

<http://hdl.handle.net/2268/107656>

Volpi, D., Blomme, R., **De Becker, M.**, & **Rauw, G.** (2011). Non-thermal radio emission from colliding-wind binaries: modelling Cyg OB2 No. 8A and No. 9. In C., Neiner, G., Wade, G., Meynet, & G., Peters (Eds.), *Active OB stars: structure, evolution, mass loss and critical limits* (pp. 638-639).

<http://hdl.handle.net/2268/97154>

Wade, G. A., Grunhut, J. H., Marcolino, W. L. F., Martins, F., Howarth, I. D., **Nazé, Y.**, & Walborn, N. R. (2011, July 01). *O?p stars: a class of slowly rotating magnetic massive stars.*

<http://hdl.handle.net/2268/99041>

# Physical Oceanography and Interdisciplinary Modelling of Marine Systems

**Alvera, A, Barth, A, Weisberg, R. H, Castañeda, J. J, Vandenbulcke, L, & Beckers, J.-M.** (2011). Thermocline characterisation in the Cariaco basin: A modelling study of the thermocline annual variation and its relation with winds and chlorophyll-a concentration. *Continental Shelf Research*, 31(1), 73-84.  
<http://hdl.handle.net/2268/81396>

Sirjacobs, D, **Alvera, A, Barth, A, Lacroix, G, Park, Y, Nechad, B, Ruddick, K, & Beckers, J.-M.** (2011). Cloud filling of ocean color and sea surface temperature remote sensing products over the Southern North Sea by the Data Interpolating Empirical Orthogonal Functions methodology. *Journal of Sea Research*, 65(1), 114-130.  
<http://hdl.handle.net/2268/81349>

**Alvera Azcarate, A, Troupin, C, Barth, A, & Beckers, J.-M.** (2011). Comparison between satellite and in situ sea surface temperature data in the Western Mediterranean Sea. *Ocean Dynamics*.  
<http://hdl.handle.net/2268/91870>

Dury, M, Hambuckers, A, Warnant, P, Henrot, A, Favre, E, **Ouberdous, M**, & François, L. (2011). Responses of European forest ecosystems to 21(st) century climate: assessing changes in interannual variability and fire intensity. *iForest: Biogeosciences and Forestry*, 4, 82-99.  
<http://hdl.handle.net/2268/96370>

Ganzedo, U, **Alvera Azcarate, A, Esnaola, G, Ezcurra, A, & Saenz, J.** (2011). Reconstruction of sea surface temperature by means of DINEOF: a case study during the fishing season in the Bay of Biscay. *International Journal of Remote Sensing*, 32(4), 933-950.  
<http://hdl.handle.net/2268/91864>

Nechad, B, **Alvera Azcarate, A, Ruddick, K, & Greenwood, N.** (2011). Reconstruction of MODIS total suspended matter time series maps by DINEOF and validation with autonomous platform data. *Ocean Dynamics*.  
<http://hdl.handle.net/2268/91866>

## In press

---

Lenartz, F, Mourre, B, **Barth, A, Beckers, J.-M, Vandenbulcke, L, & Rixen, M.** Enhanced ocean temperature forecast skills through 3-D super-ensemble multi-model fusion. *Geophysical Research Letters*, 37(L19606).  
<http://hdl.handle.net/2268/84383>

**Troupin, C, Mason, E, Beckers, J.-M, & Sangrà, P.** Generation of the Cape Ghir upwelling filament: A numerical study. *Ocean Modelling*, 41, 1-15.  
<http://hdl.handle.net/2268/100143>

Hofmeister, R, **Beckers, J.-M, & Burchard, H.** Realistic modelling of the exceptional inflows into the central Baltic Sea in 2003 using terrain-following coordinates. *Ocean Modelling*.  
<http://hdl.handle.net/2268/92087>

# Theoretical Stellar Astrophysics and Asteroseismology

Morel, T, Miglio, A, & **Valentini, M.** (2011). Using seismic targets as benchmarks for spectroscopic analyses of cool stars. *Journal of Physics: Conference Series [=JPCS]*, 328, 2010.  
<http://hdl.handle.net/2268/108859>

Hu, H, Tout, C. A, Glebbeek, E, & **Dupret, M.-A.** (2011). Slowing down atomic diffusion in subdwarf B stars: mass loss or turbulence? *Monthly Notices of the Royal Astronomical Society*, 418, 195-205.  
<http://hdl.handle.net/2268/107442>

**Ozel, N, Dupret, M.-A,** & Baglin, A. (2011). Quantitative estimates of the constraints on solar-like models imposed by observables. *Astronomy and Astrophysics*, 532, 82.  
<http://hdl.handle.net/2268/107444>

**Bouabid, M.-P, Montalban Iglesias, J,** Miglio, A, **Dupret, M.-A,** Grigahcène, A, & **Noels-Grötsch, A.** (2011). Theoretical seismic properties of pre-main sequence γ Doradus pulsators. *Astronomy and Astrophysics*, 531, 145.  
<http://hdl.handle.net/2268/107453>

**Briquet, M,** Aerts, C, Baglin, A, Nieva, M. F, Degroote, P, Przybilla, N, **Noels, A,** Schiller, F, Vučković, M, Oreiro, R, Smolders, K, Auvergne, M, Baudin, F, Catala, C, Michel, E, & Samadi, R. (2011). An asteroseismic study of the O9V star HD 46202 from CoRoT space-based photometry. *Astronomy and Astrophysics*, 527, 112.  
<http://hdl.handle.net/2268/110796>

Guirado, J. C, Marcaide, J. M, Martí-Vidal, I, Le Bouquin, J.-B, Close, L. M, Cotton, W. D, & **Montalban Iglesias, J.** (2011). The size of AB Doradus A from VLT/AMBER interferometry. *Astronomy and Astrophysics*, 533, 106.  
<http://hdl.handle.net/2268/110995>

Gillon, M, Doyle, A. P, Lendl, M, Maxted, P. F. L, Triaud, A. H. M. J, Anderson, D. R, Barros, S. C. C, Bento, J, Collier-Cameron, A, Enoch, B, Faedi, F, Hellier, C, Jehin, E, Magain, P, **Montalban Iglesias, J,** Pepe, F, Pollacco, D, Queloz, D, Smalley, B, Segransan, D, Smith, A. M. S, Southworth, J, Udry, S, West, R. G, & Wheatley, P. J. (2011). WASP-50 b: a hot Jupiter transiting a moderately active solar-type star. *Astronomy and Astrophysics*, 533, 88.  
<http://hdl.handle.net/2268/104300>

Degroote, P, Acke, B, Samadi, R, Aerts, C, Kurtz, D. W, **Noels-Grötsch, A,** Miglio, A, **Montalban Iglesias, J,** Bloemen, S, Baglin, A, Baudin, F, Catala, C, Michel, & Auvergne, M. (2011). CoRoT's view on variable B8/9 stars: spots versus pulsations. Evidence for differential rotation in HD 174648. *Astronomy and Astrophysics*, 536, 82.  
<http://hdl.handle.net/2268/110997>

di Mauro, M. P, Cardini, D, Catanzaro, G, Ventura, R, Barban, C, Bedding, T. R, Christensen-Dalsgaard, J, De Ridder, J, Hekker, S, Huber, D, Kallinger, T, Miglio, A, **Montalban Iglesias, J,** Mosser, B, Stello, D, Uytterhoeven, K, Kinemuchi, K, Kjeldsen, H, Mullally, F, & Still, M. (2011). Solar-like oscillations from the depths of the red-giant star KIC 4351319 observed with Kepler. *Monthly Notices of the Royal Astronomical Society*, 415, 3783-3797.  
<http://hdl.handle.net/2268/110996>

Aerts, C, **Briquet, M**, Degroote, P, **Thoul, A**, & van Hoolst, T. (2011). Seismic modelling of the  $\beta$  Cephei star HD 180642 (V1449 Aquilae). *Astronomy and Astrophysics*, 534, 98.  
<http://hdl.handle.net/2268/110793>

Charpinet, S, Fontaine, G, Brassard, P, Green, E. M, **Van Grootel, V**, Randall, S. K, Silvotti, R, Baran, A, Østensen, R. H, Kawaler, S. D, & Telting, J. H. (2011). A compact system of small planets around a former red giant star. *Nature*, 480, 496-499.  
<http://hdl.handle.net/2268/108787>

Alecian, E, Kochukhov, O, Neiner, C, Wade, G. A, de Batz, B, Henrichs, H, Grunhut, J. H, Bouret, J.-C, **Briquet, M**, Gagne, M, Nazé, Y, Oksala, M. E, Rivinius, T, Townsend, R. H. D, Walborn, N. R, Weiss, W, & Mimes, C. (2011). First HARSPol discoveries of magnetic fields in massive stars. *Astronomy and Astrophysics*, 536, 6.  
<http://hdl.handle.net/2268/110677>

Hubrig, S, González, J. F, Ilyin, I, Korhonen, H, Savanov, I. S, Dall, T, Schöller, M, Cowley, C. R, **Briquet, M**, & Arlt, R. (2011). Spectroscopic variability and magnetic fields of HgMn stars. *Astronomische Nachrichten*, 332, 998.  
<http://hdl.handle.net/2268/110791>

Schöller, M, Hubrig, S, Ilyin, I, Kharchenko, N. V, **Briquet, M**, González, J. F, Langer, N, & Osokinova, L. M. (2011). Magnetic field studies of massive main sequence stars. *Astronomische Nachrichten*, 332, 994.  
<http://hdl.handle.net/2268/110792>

Blomme, R, Mahy, L, Catala, C, Cuypers, J, Gosset, E, **Godart, M**, **Montalban Iglesias, J**, Ventura, P, Rauw, G, Morel, T, Degroote, P, Aerts, C, **Noels, A**, Michel, E, Baudin, F, Baglin, A, Auvergne, M, & Samadi, R. (2011). Variability in the CoRoT photometry of three hot O-type stars. HD 46223, HD 46150, and HD 46966. *Astronomy and Astrophysics*, 533, 4.  
<http://hdl.handle.net/2268/98832>

Mosser, B, Barban, C, **Montalban Iglesias, J**, Beck, P. G, Miglio, A, Belkacem, K, Goupil, M. J, Hekker, S, De Ridder, J, **Dupret, M.-A**, Elsworth, Y, **Noels-Grötsch, A**, Baudin, F, Michel, E, Samadi, R, Auvergne, M, Baglin, A, & Catala, C. (2011). Mixed modes in red-giant stars observed with CoRoT. *Astronomy and Astrophysics*, 532, 86.  
<http://hdl.handle.net/2268/107443>

Hubrig, S, Ilyin, I, **Briquet, M**, Schöller, M, González, J. F, Nuñez, N, De Cat, P, & Morel, T. (2011). The strong magnetic field of the large-amplitude  $\beta$  Cephei pulsator V1449 Aquilae. *Astronomy and Astrophysics*, 531, 20.  
<http://hdl.handle.net/2268/108682>

Hubrig, S, Ilyin, I, Schöller, M, **Briquet, M**, Morel, T, & De Cat, P. (2011). First Magnetic Field Models for Recently Discovered Magnetic beta Cephei and Slowly Pulsating B Stars. *Astrophysical Journal*, 726, 5.  
<http://hdl.handle.net/2268/81132>

Balona, L. A, Pigulski, A, Cat, P. D, Handler, G, Gutiérrez-Soto, J, Engelbrecht, C. A, Frescura, F, **Briquet, M**, Cuypers, J, Daszyńska-Daszkiewicz, J, Degroote, P, Dukes, R. J, Garcia, R. A, Green, E. M, Heber, U, Kawaler, S. D, Lehmann, H, Leroy, B, Molenda-Żaaowicz, J, Neiner, C, **Noels-Grötsch, A**, Nuspl, J, Østensen, R, Pricopi, D, Roxburgh, I, **Salmon, S**, Smith, M. A, Suárez, J. C, Suran, M, Szabó, R, Uytterhoeven, K, Christensen-Dalsgaard, J, Kjeldsen, H, Caldwell, D. A, Girouard, F. R, & Sanderfer, D. T. (2011). Kepler observations of the variability in B-type stars. *Monthly Notices of the Royal Astronomical Society*, 413, 2403-2420.  
<http://hdl.handle.net/2268/108368>

Belkacem, K, Goupil, M. J, **Dupret, M.-A**, Samadi, R, Baudin, F, **Noels-Grötsch, A**, & Mosser, B. (2011). The underlying physical meaning of the  $v_{\max}$  -  $v_c$  relation. *Astronomy and Astrophysics*, 530, 142.  
<http://hdl.handle.net/2268/107454>

Charpinet, S, **Van Grootel, V**, Fontaine, G, Green, E. M, Brassard, P, Randall, S. K, Silvotti, R, Ostensen, R. H, Kjeldsen, H, Christensen-Dalsgaard, J, Kawaler, S. D, Clarke, B. D, Li, J, & Wohler, B. (2011). Deep asteroseismic sounding of the compact hot B subdwarf pulsator KIC02697388 from Kepler time series photometry. *Astronomy and Astrophysics*, 530, 3.  
<http://hdl.handle.net/2268/108798>

Beck, P. G, Bedding, T. R, Mosser, B, Stello, D, Garcia, R, Kallinger, T, Hekker, S, Elsworth, Y, Frandsen, S, Carrier, F, De Ridder, J, Aerts, C, White, T. R, Huber, D, **Dupret, M.-A**, **Montalban Iglesias, J**, Miglio, A, **Noels-Grötsch, A**, Chaplin, W. J, Kjeldsen, H, Christensen-Dalsgaard, J, Gilliland, R. L, Brown, T. M, Kawaler, S. D, Mathur, S, & Jenkins, J. M. (2011). Kepler Detected Gravity-Mode Period Spacings in a Red Giant Star. *Science*, 332, 205.  
<http://hdl.handle.net/2268/107455>

Pápics, P. I, **Briquet, M**, Auvergne, M, Aerts, C, Degroote, P, Niemczura, E, Vučković, M, Smolders, K, Poretti, E, Rainer, M, Hareter, M, Baglin, A, Baudin, F, Catala, C, Michel, E, & Samadi, R. (2011). CoRoT high-precision photometry of the B0.5 IV star HD 51756. *Astronomy and Astrophysics*, 528, 123.  
<http://hdl.handle.net/2268/110795>

Bedding, T. R, Mosser, B, Huber, D, **Montalbán, J**, Beck, P, Christensen-Dalsgaard, J, Elsworth, Y. P, García, R. A, Miglio, A, Stello, D, White, T. R, De Ridder, J, Hekker, S, Aerts, C, Barban, C, Belkacem, K, Broomhall, A.-M, Brown, T. M, Buzasi, D. L, Carrier, F, Chaplin, W. J, di Mauro, M. P, **Dupret, M.-A**, Frandsen, S, Gilliland, R. L, Goupil, M.-J, Jenkins, J. M, Kallinger, T, Kawaler, S, Kjeldsen, H, Mathur, S, **Noels, A**, Aguirre, V. S, & Ventura, P. (2011). Gravity modes as a way to distinguish between hydrogen- and helium-burning red giant stars. *Nature*, 471, 608-611.  
<http://hdl.handle.net/2268/107456>

Lehmann, H, Tkachenko, A, Semaan, T, Gutiérrez-Soto, J, Smalley, B, **Briquet, M**, Shulyak, D, Tsymbal, V, & De Cat, P. (2011). Spectral analysis of Kepler SPB and β Cephei candidate stars. *Astronomy and Astrophysics*, 526, 124.  
<http://hdl.handle.net/2268/110797>

Pandey, C. P, Morel, T, **Briquet, M**, Jayakumar, K, Bisht, S, & Sanwal, B. B. (2011). A spectroscopic study of the hybrid pulsator Gamma Pegasi. *Communications in Asteroseismology*, 162, 21.  
<http://hdl.handle.net/2268/108452>

Bazot, M, Ireland, M. J, Huber, D, Bedding, T. R, Broomhall, A.-M, Campante, A.-M, Carfantan, H, Chaplin, W. J, Elsworth, Y, Melendez, J, Petit, P, Théado, S, **Van Grootel, V**, Arentoft, T, Asplund, M, Castro, M, Christensen-Dalsgaard, J, Do Nascimento, J. D, Dintrans, B, Dumusque, X, Kjeldsen, H, McAlister, H. A, Metcalfe, T. S, Monteiro, M. J. P. F. G, Santos, N. C, Sousa, S, Sturmann, J, Sturmann, L, Ten Brummelaar, T. N, Turner, N, & Vauclair, S. (2011). The radius and mass of the close solar twin 18 Scorpis derived from asteroseismology and interferometry. *Astronomy and Astrophysics*, 526, 4.  
<http://hdl.handle.net/2268/109064>

Mahy, L, Gosset, E, Baudin, F, Rauw, G, **Godart, M**, Morel, T, Degroote, P, Aerts, C, Blomme, R, Cuypers, J, **Noels-Grötsch, A**, Michel, E, Baglin, A, Auvergne, M, Catala, C, & Samadi, R. (2011). Plaskett's star: analysis of the CoRoT photometric data. *Astronomy and Astrophysics*, 525, 101.  
<http://hdl.handle.net/2268/83603>

Mahy, L, Rauw, G, Martins, F, Gosset, E, Nazé, Y, **Godart, M**, Sana, H, De Becker, M, & Eenens, P. (2011). The multiplicity of O-type stars in NGC 2244. *Bulletin de la Societe Royale des Sciences de Liege*, 80, 622-627.  
<http://hdl.handle.net/2268/36146>

Chapellier, E, Rodríguez, E, Auvergne, M, Uytterhoeven, K, Mathias, P, **Bouabid, M.-P**, Poretti, E, Le Contel, D, Martín-Ruiz, S., Amado, P. J, and 11 coauthors (2011). The γ Doradus CoRoT target HD 49434. II. Frequency analysis of the CoRoT data. . *Astronomy and Astrophysics*, 525, 23.

Bloemen, S, Marsh, T. R, Ostensen, R. H, Charpinet, S, Fontaine, G, Degroote, P, Heber, U, Kawaler, S. D, Aerts, C, Green, E. M, Telting, J. H, Brassard, P, Gansicke, B. T, Handler, G, Kurtz, D. W, Silvotti, R, **Van Grootel, V**, Lindberg, J. E, Pursimo, T, Wilson, P. A, Gilliland, R. L, Kjeldsen, H. A, Christensen-Dalsgaard, J, Borucki, W. J, Koch, D, Jenkins, J. M, & Klaus, T. C. (2011). Kepler observations of the beaming binary KPD 1946+4340. *Monthly Notices of the Royal Astronomical Society*, 410, 1787.  
<http://hdl.handle.net/2268/109067>

Fontaine, G, Brassard, P, Green, E. M, Charpinet, S, Dufour, P, Hubeny, I, Steeghs, D, Aerts, C, Randall, S. K, Bergeron, P, Guvenen, B, O'Malley, C. J, **Van Grootel, V**, Ostensen, R. H, Bloemen, S, Silvotti, R, Howell, S. B, Baran, A, Kepler, S. O, Marsh, T. R, Montgomery, M. H, Oreiro, R, Provencal, J, Telting, J. H, Winget, D. E, Zima, W, Christensen-Dalsgaard, J, & Kjeldsen, H. (2011). Discovery of a New AM CVn System with the Kepler Satellite. *Astrophysical Journal*, 726, 92.  
<http://hdl.handle.net/2268/109069>

Blomme, R, **Briquet, M**, Degroote, P, Mahy, L, Aerts, C, Cuypers, J, **Godart, M**, Gosset, E, Hareter, M, **Montalban Iglesias, J**, Morel, T, Nieva, M. F, **Noels-Grötsch, A**, Oreiro, R, Poretti, E, Przybilla, N, Rainer, M, Rauw, G, Schiller, F, Simon-Diaz, S, Smolders, K, Ventura, P, Vuckovic, M, Auvergne, M, Baglin, A, Baudin, F, Catala, C, Michel, E, & Samadi, R. (2011). CoRoT observations of O stars: diverse origins of variability. *ArXiv e-prints*, 1109, 1999.  
<http://hdl.handle.net/2268/110921>

Korhonen, H, Hubrig, S, **Briquet, M**, González, F, & Savanov, I. (2011). Chemical spots and their dynamical evolution on HgMn stars. *IAU Symposium*, 273, 116-120.  
<http://hdl.handle.net/2268/110794>

**Dupret, M.-A, Godart, M**, Belkacem, K, & **Noels, A**. (2011). Seismic modelling of OB stars. *Proceedings of the International Astronomical Union*, 272, 457-467.  
<http://hdl.handle.net/2268/107451>

**Godart, M, Dupret, M.-A, Noels, A**, Aerts, C, Simón-Díaz, S, Lefever, K, Puls, J, **Montalban, J**, & Ventura, P. (2011). Pulsations in massive stars: effect of the atmosphere on the strange mode pulsations. *Proceedings of the International Astronomical Union*, 272, 503-504.  
<http://hdl.handle.net/2268/107450>

---

## In press

Beck, P. G, **Montalban, J**, Kallinger, T, De Ridder, J, Aerts, C, García, R. A, Hekker, S, **Dupret, M.-A**, Mosser, B, Eggenberger, P, Stello, D, Elsworth, Y, Frandsen, S, Carrier, F, Hillen, M, Gruberbauer, M, Christensen-Dalsgaard, J, Miglio, A, **Valentini, M**, Bedding, T. R, Kjeldsen, H, Girouard, F. R, Hall, J. R, & Ibrahim, K. A. Fast core rotation in red-giant stars as revealed by gravity-dominated mixed modes. *Nature*  
<http://hdl.handle.net/2268/107458>

Neiner, C, Alecian, E, **Briquet, M**, Floquet, M, Frémat, Y, Martayan, C, & Thizy, O. Detecting and modelling the magnetic field of the  $\beta$  Cephei star V 2052 Ophiuchi. *Astronomy and Astrophysics*  
<http://hdl.handle.net/2268/110790>

**Reese, D**, Marques, J. P, Goupil, M. J, Thompson, M. J, & Deheuvels, S. Estimating stellar mean density through seismic inversions. *Astronomy and Astrophysics*  
<http://hdl.handle.net/2268/110670>

## Thermodynamics of Irreversible Phenomena

**Paeme, S, Moorhead, K, Chase, J. G, Lambermont, B, Kolh, P, D'orio, V, Pierard, L, Moonen, M, Lancellotti, P, Dauby, P, & Desaive, T.** (2011). Mathematical multi-scale model of the cardiovascular system including mitral valve dynamics. Application to ischemic mitral insufficiency. *BioMedical Engineering OnLine*, 10(1), 86.

<http://hdl.handle.net/2268/103134>

**Machrafi, H, Rednikov, A, Colinet, & Dauby, P.** (2011). Bénard instabilities in a binary-liquid layer evaporating into an inert gas: stability of quasi-stationary and time-dependent reference profiles. *European Physical Journal. Special Topics*, 192(1), 71-81.

<http://hdl.handle.net/2268/82722>

Chase, J. G, Lambermont, B, Starfinger, C, Hann, C. E, Shaw, G. M, Ghysen, A, Kolh, P, **Dauby, P, & Desaive, T.** (2011). Subject-specific cardiovascular system model-based identification and diagnosis of septic shock with a minimally invasive data set: animal experiments and proof of concept. *Physiological Measurement*, 32(1), 65-82.

<http://hdl.handle.net/2268/83606>

Chase, J. G, Le Compte, A. J, Preiser, J.-C, Shaw, G. M, Penning, S, & **Desaive, T.** (2011). Physiological modeling, tight glycemic control, and the ICU clinician: what are models and how can they affect practice? *Annals of Intensive Care*, 1:11.

<http://hdl.handle.net/2268/90768>

Docherty, P. D, Chase, J. G, Lotz, T. F, & **Desaive, T.** (2011). A graphical method for practical and informative identifiability analyses of physiological models: A case study of insulin kinetics and sensitivity. *Biomedical Engineering Online*, 10.

<http://hdl.handle.net/2268/98987>

Revie, J, Stevenson, D, Chase, J, Hann, C, Lambermont, B, Ghysen, A, Kolh, P, Shaw, G, Heldmann, S, & **Desaive, T.** (2011). Validation of subject-specific cardiovascular system models from porcine measurements. *Computer Methods & Programs in Biomedicine*.

<http://hdl.handle.net/2268/109825>

Revie, J. A, Stevenson, D. J, Chase, J. G, Hann, C. E, Lambermont, B, Ghysen, A, Kolh, P, Morimont, P, Shaw, G. M, & **Desaive, T.** (2011). Clinical detection and monitoring of acute pulmonary embolism: proof of concept of a computer-based method. *Annals of Intensive Care*, 1(1), 33.

<http://hdl.handle.net/2268/109823>

Revie, J, Stevenson, D, Chase, J. G, Hann, C, Lambermont, B, Ghysen, A, Kolh, P, Morimont, P, Shaw, G, & **Desaive, T.** (2011). Clinical detection and monitoring of acute pulmonary embolism: proof of concept of a computer-based method. *Annals of Intensive Care*, 1:33.

<http://hdl.handle.net/2268/100513>

Sundaresan, A, Chase, J. G, Shaw, G. M, Chiew, Y. S, & **Desaive, T.** (2011). Model-based optimal PEEP in mechanically ventilated ARDS patients in the Intensive Care Unit. *Biomedical Engineering Online*, 10.

<http://hdl.handle.net/2268/98986>

Evans, A, Shaw, G. M, Le Compte, A, Tan, C.-S, Ward, L, Steel, J, Pretty, C. G, Pfeifer, L, **Penning, S, Suhaimi, F, Signal, M, Desaive, T, & Chase, J. G.** (2011). Pilot proof of concept clinical trials of Stochastic Targeted (STAR) glycemic control. *Annals of intensive care*, 1, 38.

<http://hdl.handle.net/2268/102999>

**Penning, S**, Le Compte, A. J, **Moorhead, K. T**, **Desaive, T**, Massion, P, Preiser, J.-C, Shaw, G. M, & Chase, J. G. (2011). First pilot trial of the STAR-Liege protocol for tight glycemic control in critically ill patients. *Computer Methods & Programs in Biomedicine*.  
<http://hdl.handle.net/2268/98703>

Scheid, B, Margerit, J, Iorio, C. S, Joannes, M, Heraud, M, Queekers, **P, Dauby, P, & Colinet, P.** (2011). Onset of thermal ripples at the interface of an evaporating liquid under a flow of inert gas. *Experiments in Fluids*.  
<http://hdl.handle.net/2268/103564>

## In press

---

Evans, A, Le Compte, A, Tan, C.-S, Ward, L, Steel, J, Pretty, C. G, **Penning, S**, Suhaimi, F, Shaw, G. M, **Desaive, T**, & Chase, J. G. Stochastic Targeted (STAR) Glycemic Control - Design, Safety and Performance. *Journal of Diabetes Science and Technology*.  
<http://hdl.handle.net/2268/110513>

Ward, L, Steel, J, Le Compte, A, Evans, A, Tan, C.-S, **Penning, S**, Shaw, G. M, **Desaive, T**, & Chase, J. G. Data Entry Errors and Design for Model-Based Tight Glycemic Control in Critical Care. *Journal of Diabetes Science and Technology*.  
<http://hdl.handle.net/2268/110161>

Ward, L, Steel, J, Le Compte, A, Evans, A, Tan, C.-S, **Penning, S**, Shaw, G. M, **Desaive, T**, & Chase, J. G. Interface Design and Human Factors Consideration for Model-Based Tight Glycemic Control in Critical Care. *Journal of Diabetes Science and Technology*.  
<http://hdl.handle.net/2268/110514>