

Publications of the Infrared-Astronomy Group

Max Planck Institute for Radio Astronomy

2013

Refereed and Invited Papers

Absil, O., Defrère, D., Coudé du Foresto, V., Di Folco, E., Mèrand, A., Augereau, J.-C., Ertel, S., Hanot, C., Kervella, P., Mollier, B., Scott, N., Che, X., Monnier, J. D., Thureau, N., Tuthill, P. G., ten Brummelaar, T. A., McAlister, H. A., Sturmman, J., Sturmman, L., Turner, N.: A near-infrared interferometric survey of debris-disc stars. III. First statistics based on 42 stars observed with CHARA/FLUOR. *A&A* **555**, A104 (2013).

Biermann, P. L., Becker, T. J., Seo, E.-S., Mandelartz, M.: Cosmic-ray transport and anisotropies. *Astrophys. Journ.* **768**, 124 (2013).

Boley, P. A., Linz, H., van Boekel, R., Henning, T., Feldt, T., Kaper, L., Leinert, C., Mueller, A., Pascucci, I., Roberto, M., Stecklum, B., Waters, L. B. F. M., Zinnecker, H.: The VLT/MIDI survey of massive young stellar objects – Sounding the inner regions around intermediate- and high-mass young stars using mid-interferometry. *A&A* **558**, A24 (2013).

Burtscher, L., Meisenheimer, K., Tristram, K. R. W., Jaffe, W., Hönig, S. F., Davies, R. I., Kishimoto, M., Pott, J.-U., Röttgering, H., Schartmann, M., Weigelt, G., Wolf, S.: A diversity of dusty AGN tori: Data release for the VLT/MIDI AGN Large Program and first results for 23 galaxies. *A&A* **558**, A149 (2013).

Caratti o Garatti, A., Garcia Lopez, R., Weigelt, G., Tambovtseva, L. V., Grinin, V. P., Wheelwright, H., Ilee, J. D.: LBT/LUCIFER near-infrared spectroscopy of PV Cephei. An outbursting young stellar object with an asymmetric jet. *A&A* **554**, A66 (2013).

Garcia, P. J. V., Benisty, M., Dougados, C., Bacciotti, F., Clausse, J.-M., Massi, F., Mérand, A., Petrov, R., Weigelt, G.: Pre-main-sequence binaries with tidally disrupted discs: the Bry in HD 104237. *Mon. Not. R. Astron. Soc.* **430**: 3, 1839-1853 (2013).

Garcia Lopez, R., Caratti o Garatti, A., Weigelt, G., Nisini, B., Antonucci, S.: Spatially resolved H₂ emission from a very low-mass star. *A&A* **552**, L2 (2013).

Hönig, S. F., Kishimoto, M., Tristram, K. R. W., Prieto, M. A., Gandhi, P., Asmus, D., Antonucci, R., Burtscher, L., Duschl, W. J., Weigelt, G.: Dust in the Polar Region as a Major Contributor to the Infrared Emission of Active Galactic Nuclei. *Astrophys. Journ.* **771**:2, 87 (2013).

Ilee, J. D., Wheelwright, H. E., Oudmaijer, R. D., de Wit, W. J., Maud, L. T., Hoare, M. G., Lumsden, S. L., Moore, T. J. T., Urquhart, J. S., Mottram, J. C.: CO bandhead emission of massive young stellar objects: determining disc properties. *Mon. Not. R. Astron. Soc.* **429**: 4, 2960-2973 (2013).

Karovicova, I., Wittkowski, M., Ohnaka, K., Boboltz, D.A., Fossat, E., Scholz, M.: New insights into the dust formation of oxygen-rich AGB stars. *A&A* **560**, A75 (2013).

Kishimoto, M., Hönig, S. F., Antonucci, R., Millan-Gabet, R., Barvainis, R., Millour, F., Kotani, T., Tristram, K. R. W., Weigelt, G.: Evidence for a receding dust sublimation region around a supermassive black hole. *ApJ Letters* **775**: 2, L36 (2013).

Kreplin, A., Weigelt, G., Kraus, S., Grinin, V., Hofmann, K.-H., Kishimoto, M., Schertl, D., Tambovtseva, L., Clausse, J.-M., Massi, F., Perraut, K., Stee, Ph.: Revealing the inclined circumstellar disk in the UX Orionis system KK Ophiuchi. *A&A* **551**, A21 (2013).

Kurosawa, R., Romanova, M. M.: Spectral variability of classical T Tauri stars accreting in an unstable regime. *Mon. Not. R. Astron. Soc.* **431**: 3, 2673-2689 (2013).

Launhardt, R., Stutz, A. M., Schmiedeke, A., Henning, Th., Krause, O., Balog, Z., Beuther, H., Birkmann, S., Hennemann, M., Kainulainen, J., Khanzadyan, T., Linz, H., Lippok, N., Nielbock, M., Pitann, J., Ragan, S., Risacher, C., Schmalzl, M., Shirley, Y. L., Stecklum, B., Steinacker, J., Tackenberg, J.: The earliest phases of star formation (EPoS): a Herschel key project. The thermal structure of low-mass molecular cloud cores. *A&A* **551**, A98 (2013).

Magakian, T. Y., Nikogossian, E. H., Movsessian, T., Moiseev, A., Aspin, C., Davis, C. J., Tae-Soo, P., Khanzadyan, T., Froebrich, D., Smith, M. D., Moriarty-Schieven, G. H., Beck, T. L.: V2494 Cyg: a unique FU Ori type object in the Cygnus OB7 complex. *Mon. Not. R. Astron. Soc.* **432**: 4, 2685 – 2695 (2013).

Matter, A., Defrère, D., Danchi, W. C., Lopez, B., Absil, O.: Parasitic interference in nulling interferometry. *Mon. Not. R. Astron. Soc.* **431**: 2, 1286-1295 (2013).

Matter, A., Delbo, M., Carry, B., Liori, S.: Evidence of a metal-rich surface for the asteroid (16) Psyche from interferometric observations in the thermal infrared. *Icarus* **226**: 1, 419-427 (2013).

Matter, A., Delbo, M., Liori, S., Crouzet, N., Tanga, P.: Corrigendum to “Determination of physical properties of the Asteroid (41) Daphne from interferometric observations in the thermal infrared” [*Icarus* 215 (2011) 47-56]. *Icarus* **226**: 1, 1184-1184 (2013).

Meilland, A., Stee, Ph., Spang, A., Malbet, F., Massi, F., Schertl, D.: The binary Be star δ Scorpii at high spectral and spatial resolution: II. The circumstellar disk evolution after the periastron. *A&A* **550**, L5 (2013).

Meli, A., Biermann, P.L.: Active galactic nuclei jets and multiple oblique shock acceleration: starved spectra. *A&A* **556**, A88 (2013).

Murakawa, K., Lumsden, S. L., Oudmaijer, R. D., Davies, B., Wheelwright, H. E., Hoare, M. G., Ilee, J. D.: Near-infrared integral field spectroscopy of massive young stellar objects. *Mon. Not. R. Astron. Soc.* Advance Access doi: 10.1093/mnras/stt11592 (2013).

Ohnaka, K.: Spatially resolved, high-spectral resolution observation of the K giant Aldebaran in the CO first overtone lines with VLT/AMBER. *A&A* **553**, A3 (2013).

Ohnaka, K.: Spatially resolving the atmospheric dynamics over the surface of red supergiants with the Very Large Telescope Interferometer. P. Kervella, T. Le Bertre and G. Perrin (eds.). *EAS Publications Series* **60**, 121-129 (2013).

Ohnaka, K., Boboltz, D.A., Mülitz-Schimmel, G., Izumiura, H., Wittkowski, M.: VLA survey of 22 GHz H₂O masers toward ten silicate carbon stars. *A&A* **559**, A120 (2013).

Ohnaka, K., Hofmann, K.-H., Schertl, D., Weigelt, G., Baffa, C., Chelli, A., Petrov, R., Robbe-Dubois, S.: High spectral resolution imaging of the dynamical atmosphere of the red supergiant Antares in the CO first overtone lines with VLT/AMBER. *A&A* **555**, A24 (2013).

Sluse, D., Kishimoto, M., Anguita, T., Wucknitz, O., Wambsganss, J.: Mid-infrared microlensing of accretion disc and dusty torus in quasars: effects on flux ratio anomalies. *A&A* **553**, A53 (2013).

Stee, Ph., Meilland, A., Bendjoya, Ph., Millour, F., Smith, M., Spang, A., Duvert, G., Hofmann, K.-H., Massi, F.: Evidence of an asymmetrical Keplerian disk in the Br γ and He I emission lines around the Be star HD 110432. *A&A* **550**, A65 (2013).

Ten Brummelaar, T. A., Sturmman, J., Ridgway, S. T., Sturmman, L., Turner, N. H., McAlister, H. A., Farrington, C. D., Beckmann, U., Weigelt, G., Shure, M.: The Classic/climb Beam Combiner at the CHARA Array. *Journal of Astronomical Instrumentation* **2**: 2, id. 1340004 (2013).

Tristram, K. R. W.: Stability of the MIDI photometry: the case of Circinus. arXiv: 1312.3607v1[astro-ph.IM] (2013).

Wheelwright, H. E., Weigelt, G., Caratti o Garatti, A., Garcia Lopez, R.: HD 85567: A Herbig B[e] star or an interacting B[e] binary? Resolving HD 85567's circumstellar environment with the VLT/AMBER. *A&A* **558**, A116 (2013).

Wykes, S., Croston, J. H., Hardcastle, M. J., Eilek, J. A., Biermann, P. L., Achterberg, A., Bray, J. D., Lazarian, A., Haverkorn, M., Protheroe, R. J., Bromberg, O.: Mass entrainment and turbulence-driven acceleration of ultra-high energy cosmic rays in Centaurus A. *A&A* **558**, A19 (2013).

Asmus, D., Gandhi, P., Hoenig, S. F., Smette, A.: The largest mid-infrared atlas of active galactic nuclei at sub-arcsecond spatial scales. Proceedings of the Torus Workshop 2012 held at the University of Texas at San Antonio, 5-7 December 2012. C. Packham, R. Mason, and A. Alonso-Herrero (eds.); 8 pages, 5 figures; slides available at http://files.gemini.edu/~torus2012/asmus_torus2012_web.pdf (2013).

de Wit, W. J., Wheelwright, H., Oudmaijer, R., D., Mehner, A.: The geometry and dynamics of mass-loss at milli-arcsecond scales of massive stars in transition. In: Massive Stars: From α to Ω , held 10-14 June 2013 in Rhodes, Greece; Online at <http://a2omega-conference.net>, id. 146

Garcia Lopez, R., Caratti o Garatti, A., Weigelt, G., Nisini, B., Antonucci, S.: Spatially resolved atomic and molecular emission from the very low-mass star IRS54. Proceedings for the conference "Brown dwarfs come of age", May 20-24 2013, to be published in "Memorie della Societa Astronomica Italiana". eprint arXiv: 1307.0677 (2013).

Hofferbert, R., Baumeister, H., Bertram, T., et al.: Linc-nirvana for the large binocular telescope: setting up the world's largest near infrared binoculars for astronomy. Opt. Eng. 0001; 52(8): 081602-081602. doi:10.1117/1.OE.52.8.081602 (2013).

Karovicova, I., Wittkowski, M., Ohnaka, K., Boboltz, D. A., Fossat, E., Scholz, M.: Mid-infrared interferometric observations of four oxygen-rich Mira variables. In: Mid-infrared interferometric observations of four oxygen-rich Mira variables. Eds. Alecian, G.; Lebreton, Y.; Richard, O.; Vauclair, G. EAS Publications Series No. 63, EDP Sciences, Les Houches, 191-196 (2013).

Kloppenborg, B.: Interferometric results from the epsilon Aurigae eclipse: It's more than just images! Giants of Eclipse, AAS Topical Conference Series, Vol. 3. Proceedings of the conference held 28 July – 2 August 2013 in Monterey, CA, USA. Bulletin of the American Astronomical Society, Vol. 45, #8, #200.02 (2013).

Kreplin, A., Weigelt, G., Kraus, S., Grinin, V., Hofmann, K.-H., Kishimoto, M., Schertl, D., Tambovtseva, L., Clausse, J.-M., Massi, F., Perraut, K., Stee, Ph.: Revealing the inclined circumstellar disk in the UX Orionis system KK Ophiuchi. Protostars and Planets VI, Heidelberg, July 15-20, 2013. Poster #2B025(2013).

Kurosawa, R., Romanova, M. M.: Observable Signatures of Classical T Tauri Stars Accreting in an Unstable Regime. Eprint arXiv: 1307.3639. 6 pages, 3 figures to appear in the proceedings of the conference: "Physics at the Magnetospheric Boundary", Geneva, Switzerland, 25-28 June (2013).

Matter, A., Labadie, L., Kreplin, A., Lopez, B., Wolf, S., Weigelt, G., Ertel, S., Pott, J.-U., Danchi, W.C.: Evidence of a discontinuous disk structure around the Herbig Ae star HD 139 614. Protostars and Planets VI, Heidelberg, July 15-20, 2013. Poster #2B014 (2013).

Montargès, M., Kervella, P., Perrin, G., Ohnaka, K.: Exploring the water and carbon monoxide shell around Betelgeuse with VLTI/AMBER. EAS Publications Series, 60, pp 167-172. doi:10.1051/eas/1360019 (2013).

Montes, M., Acosta-Pulido, J.-A., Prieto, M. A., Fernández-Ontiveros, J. A.: Undressing M87 by Exposing its Most Private Globulars. The Intriguing Life of Massive Galaxies, Proceedings of the International Astronomical Union, IAU Symposium, Vol. 295, p 318 (2013).

Zimmerman, N., Skemer, A., Apai, D., Bailey, V., Biller, B., Bonnefoy, M., Brandner, W., Buenzli, E., Close, L., Crepp, J., Defrere, D., Desidera, S., Eisner, J., Esposito, S., Forney, J., Henning, T., Hinz, P., Hofmann, K.-H., Leisenring, J., Males, J., Millan-Gabet, R., Morzinski, K., Pascucci, I., Patience, J., Rieke, G., Schertl, D., Schlieder, J., Skrutskie, M., Su, K., Woodward, C., Weigelt, G.: A 100-Night Exoplanet Imaging Survey at LBT. Protostars and Planets VI, Heidelberg, July 15-20, 2013. Poster #2K006 (2013).