

Publications of the Infrared-Astronomy Group

Max Planck Institute for Radio Astronomy

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Refereed and Invited Papers

- Balega, Yu. Yu.; Leushin, V. V.; Weigelt, G.*: Iron abundance in the atmospheres of components of the binary system 41 Draconis, *Bulletin of the Special Astrophysical Observatory*, Vol. **55**, pg.5-17 (2003)
- Ikhsanov, N.R.*: On the accretion luminosity of isolated neutron stars, *A&A*, **399**, 1147 (2003)
- Beckert, T.*: Circular polarization and magnetic fields in jet models, *Astrophys. Space Science*, **288**, 123-132 (2003)
- Ikhsanov, N.R.*: On the accretion luminosity of isolated neutron stars, *A&A*, **399**, 1147 (2003)
- Maximov, A. F.; Balega, Yu. Yu.; Beckmann, U.; Weigelt, G.; Pluzhnik, E. A.*: Speckle interferometer of the 6 m telescope, *Bulletin of the Special Astrophysical Observatory*, Vol. **56**, p. 102 - 114 (2003)
- Ohnaka, K., Beckmann, U., Berger, J.-P., Brewer, M.K., Hofmann, K.-H., Lacasse, M.G., Malanushenko, V., Millan-Gabet, R., Monnier, J.D., Pedretti, E., Schertl, D., Schloerb, F.P., Shenavrin, V.I., Traub, W.A., Weigelt, G., Yudin, B.F.*: JHK'-band IOTA interferometry of the circumstellar environment of R CrB, *A&A*, **408**, 553 (2003)
- Preibisch, Th., Schertl, D., Balega, Y.Y., Weigelt, G.*: Bispectrum speckle interferometry of the massive protostellar outflow source AFGL 2591, *A&A*, **412**, 735 (2003)
- Preibisch, Th.*: XMM-Newton study of the Serpens star forming region A&A, **410**,951 (2003)
- Preibisch, Th., Stanke, Th., Zinnecker, H.*: Constraints on the IMF and the brown dwarf population of the young cluster IC 348, *A&A*, **409**, 147 (2003)
- Preibisch, Th.*: XMM-Newton study of the star forming region NGC 1333, *A&A*, **401**, 543 (2003)
- Preibisch, Th., Schertl, D., Weigelt, G.*: High-resolution infrared imaging of young outflow-sources, *Astrophys. Space Science*, **287**, 179-182 (2003)
- Schertl, D., Balega, Y.Y., Preibisch, Th., Weigelt, G.*: Orbital motion of the massive multiple stars in the Orion Trapezium, *A&A*, **402**, 267 (2003)
- Schröder, K.-P., Wachter, A., Winters, J.M.*: The IR-colour - mass-loss relation of carbon-rich, dust-driven superwinds and a synthetic (J-K, M_{bol}) diagram, *A&A*, **398**, 229 (2003)
- Smith, K., Pestalozzi, M., Guedel, M., Conway, J., Benz, A.O.*: VLBI observations of T Tauri South, *A&A*, **406**, 957 (2003)
- Tokovinin, A., Balega, Y.Y., Pluzhnik, E.A., Shatsky, N.I., Gorynya, N.A., Weigelt, G.*: Fundamental parameters and origin of the very eccentric binary 41 Dra, *A&A*, **409**, 245 (2003)
- Weis, K.*: On the structure and kinematics of nebulae around LBVs and LBV candidates in the LMC, *A&A*, **408**, 205 (2003)
- Weis, K., Duschl, W.J., Bomans, D.J.*: An outflow from the nebula around the LBV candidate S 119, *A&A*, **398**, 1041-1048 (2003)
- Yuan, F., Zhao, J-H.*: The Structure and Variability of Sagittarius A*: Zooming in to the Supermassive Black Hole at the Galactic Center, *Chinese Journal of Astronomy & Astrophysics*, **93**, p. 41-54 (2003)

- Blöcker, T., Hofmann, K.-H., Weigelt, G.:* Spectral observations of envelopes around stars in late stages of stellar evolution, Observing with the Very Large Telescope Interferometer, European Winter School, Perrin, G., Malbet, F. (eds.), EAS Publ. Ser., **6**, p.203 (2003)
- Blöcker, T.:* H- and He-burning central stars and the evolution to white dwarfs, Planetary Nebulae: Their Evolution and Role in the Universe, IAU Symp. 209, Dopita, M., Kwok, S., Sutherland, R. (eds.), ASP, p.101 (2003)
- Blöcker, T., Balega, Y., Hofmann, K.-H., Men'shchikov, A., Weigelt, G., and Winters, J.M.:* Bispectrum speckle interferometry and future long-baseline interferometry of the carbon star IRC + 10 216, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 1055-1060
- Briggs, K.R., Güdel, M., Audard, M., Smith, K., Mewe, R., Den Boggende, T.:* X-ray emission from pre-main sequence stars in the Orion star-forming region. In: Schiellike, R.E. (ed.): Short Contrib. Ann. Sci. Meeting Astron. Ges. Freiburg 2003. Astron. Nachr. **324**, Suppl. Issue 3 (2003), 9
- Eberhardt, M., Woodruff, H.C., Driebe, T., Hofmann, K.-H., Schöller, M., Scholz, M., Weigelt, G., Wittkowski, M.:* VINCI VLTI interferometry of Mira stars and determination of stellar parameters. In: Schiellike, R.E. (ed.): Short Contrib. Ann. Sci. Meeting Astron. Ges. Freiburg 2003. Astron. Nachr. **324**, Suppl. Issue 3, 136 (2003)
- Hofmann, K.-H., Beckmann, U., Berger, J., Blöcker, T., Brewer, M.K., Lacasse, M., Malanushenko, V., Millan-Gabet, R., Monnier, J., Ohnaka, K., Pedretti, E., Schertl, D., Schloerb, P., Scholz, M., Traub, W. A., Weigelt, G., and Yudin, B.:* Near-infrared IOTA interferometry of the symbiotic star CH Cyg, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 1043-1046 (2003)
- Hofmann, K.-H., Balega, Y., Blöcker, T., Weigelt, G.:* A multi-wavelength study of the oxygen-rich AGB star CIT 3: Bispectrum speckle interferometry and dust-shell modelling, Planetary Nebulae: Their Evolution and Role in the Universe, IAU Symp. 209, Dopita, M., Kwok, S., Sutherland, R. (eds.), ASP, **209**, p.121 (2003)
- Jeong, K.S., Winters, J.M., Le Bertre, T., and Sedlmayr, E.:* Theoretical color mass-loss relations for O-rich Mira stars, In: Mass-losing pulsating stars and their circumstellar matter. Workshop, May 13-16, 2002, Sendai, Japan, edited by Y. Nakada, M. Honma and M. Seki. Astrophysics and Space Science Library, Vol. **283**, Dordrecht: Kluwer Academic Publishers, pp. 139-141 (2003)
- Malbet, F., Blöcker, T., Foy, R., Fraix-Burnet, D., Mathias, P., Marconi, A., Monin, J.-L., Petrov, R.G., Stee, P., Testi, L., and Weigelt, G.:* Astrophysical potential of the AMBER/VLTI instrument, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 917-923 (2003)
- Ohnaka, K., Beckmann, U., Berger, J.-P., Brewer, M.K., Hofmann, K.-H., Lacasse, M.G., Malanushenko, V., Millan-Gabet, R., Monnier, J.D., Pedretti, E., Schertl, D., Schloerb, F.P., Shenavrin, V., Traub, W. A., Weigelt, G., and Yudin, B.:* IOTA observations of the circumstellar envelope of R CrB, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 1068-1071 (2003)
- Ohnaka, K., Blöcker, T., Hofmann, K.-H., Ikhsanov, N.R., Weigelt, G., Balega, Y., Shenavrin, V.I., Yudin, B.F., Efimov, Y.S.:* Diffraction-limited speckle interferometry and modeling of the circumstellar envelope of R CrB at maximum and minimum light, Planetary Nebulae: Their Evolution and Role in the Universe, IAU Symp. 209, Dopita, M., Kwok, S., Sutherland, R. (eds.), ASP, **209**, p.88 (2003)
- Ohnaka, K., Beckmann, U., Berger, J.-P., Brewer, M.K., Hofmann, K.-H., Lacasse, M.G., Millan-Gabet, R., Monnier, J.D., Pedretti, E., Schertl, D., Schloerb, F.P., Scholz, M., Traub, W.A., Weigelt, G.:* JHK'-band IOTA interferometry of the Mira star T Cep and the circumstellar environment of R CrB. In: Schiellike, R.E. (ed.): Short Contrib. Ann. Sci. Meeting Astron. Ges. Freiburg 2003. Astron. Nachr. **324**, Suppl. Issue 3, 61-62 (2003)
- Perinotto, M., Calonaci, C., Schönberner, D., Steffen, M., Blöcker, T.:* Formation and evolution of Planetary Nebulae: A radiation hydrodynamics study, Planetary Nebulae: Their Evolution and Role in the Universe, IAU Symp. 209, Dopita, M., Kwok, S., Sutherland, R. (eds.), ASP, **209**, p.157 (2003)
- Petrov, R.G., Malbet, F., Weigelt, G., Lisi, F., Puget, P., Antonelli, P., Beckmann, U., Lagarde, S., Lecoarer, E., Robbe-Dubois, S., Duvert, G., Gennari, S., Chelli, A., Dugue, M., Rousselet-Perraut, K., Vannier, M., and Mourard, D.:* Using the near infrared VLTI instrument AMBER, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 924-933 (2003)
- Preibisch, T., Balega, Y., Schertl, D., Hofmann, K.-H., and Weigelt, G.:* Bispectrum speckle interferometry and future long-baseline interferometry of the young bipolar outflow source S140 IRS1, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 1047-1054 (2003)
- Preibisch, T.:* The coronae of very young solar-like stars. In: Schiellike, R.E. (ed.): Short Contrib. Ann. Sci. Meeting Astron. Ges. Freiburg 2003. Astron. Nachr. **324**, Suppl. Issue 3 (2003), 17

Preibisch, T., Balega, Y.Y., Schertl, D., Weigelt, G.: The massive multiple stars in the Orion trapezium: orbital motion, physical properties, and implications on star formation scenarios. In: Schiellike, R.E. (ed.): Short Contrib. Ann. Sci. Meeting Astron. Ges. Freiburg 2003. Astron. Nachr. **324**, Suppl. Issue 3, 41 (2003)

Riechers, D., Berger, M., Balega, Y., Driebe, T., Hofmann, K.-H., Weigelt, G.: High-resolution near-infrared speckle interferometry and radiative transfer modeling of the OH/IR star OH104.9+2.4. In: Schiellike, R.E. (ed.): Short Contrib. Ann. Sci. Meeting Astron. Ges. Freiburg 2003. Astron. Nachr. **324**, Suppl. Issue 3, 136 (2003)

Schröder, K.-P., Winters, J.M.: Assessment of the tip-AGB mass-loss using synthetic stellar samples in the (M_{bol} , J-K) diagram, The Future of Cool-Star Astrophysics: 12th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (July 30 - August 3, 2001), eds. A. Brown, G.M. Harper, and T.R. Ayres, p.1063-1068 (2003)

Traub, W.A., Ahearn, A., Carleton, N.P., Berger, J.-P., Brewer, M., Hofmann, K.-H., Kern, P., Lacasse, M.G., Malbet, F., Millan-Gabet, R., Monnier, J.D., Ohnaka, K., Pedretti, E., Ragland, S., Schloerb, F.P., Souccar, K., and Weigelt, G.: New Beam-Combination Techniques at IOTA, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 45-52 (2003)

Wachter, A., Schröder, K.-P., Winters, J.M.: An improved mass-loss description for dust-driven superwinds, The Future of Cool-Star Astrophysics: 12th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun (July 30 - August 3, 2001), eds. A. Brown, G.M. Harper, and T.R. Ayres, p.1030-1035 (2003)

Weigelt, G., Blöcker, T., Hofmann, K.-H., Men'shchikov, A., Winters, J.M., Balega, Y.: Near-infrared monitoring of the carbon star IRC+10216: A high spatial resolution time sequence of dust-shell evolution, Planetary Nebulae: Their Evolution and Role in the Universe, IAU Symp. 209, Dopita, M., Kwok, S., Sutherland, R. (eds.), ASP **209**, p.83 (2003)

Weigelt, G., Beckmann, U., Berger, J., Blöcker, T., Brewer, M.K., Hofmann, K.-H., Lacasse, M., Malanushenko, V., Millan-Gabet, R., Monnier, J., Ohnaka, K., Pedretti, E., Schertl, D., Schloerb, P., Scholz, M., Traub, W.A., and Yudin, B.: Spectro-interferometry of the Mira star T Cep with the IOTA interferometer and comparison with models, Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 181-184 (2003)

Weigelt, G., Blöcker, T., Hofmann, K.-H., Men'shchikov, A., Winters, J.M., and Balega, Y.: Bispectrum speckle interferometry of the carbon star IRC +10216 , In: Mass-losing pulsating stars and their circumstellar matter. Workshop, May 13-16, 2002, Sendai, Japan, edited by Y. Nakada, M. Honma and M. Seki. Astrophysics and Space Science Library, Vol. **283**, Dordrecht: Kluwer Academic Publishers, p. 249-250 (2003)

Weis, K., Corcoran, M.F., Davidson, K., Humphreys, R.M., 2002, A High-Resolution Study of Eta Carinae's Outer Ejecta, A Massive Star Odyssey, from Main Sequence to Supernova, , Proceedings of IAU Symposium #212, held 24-28 June 2001 in Lanzarote, Canary island, Spain. Edited by Karel van der Hucht, Artemio Herrero, and Esteban, César. San Francisco: Astronomical Society of the Pacific, p.759 (2003)

Weis, K.: LBV (Candidate) Nebulae: Bipolarity and Outflows, IAU Symp. No. **212** A Massive Star Odyssey: From Main Sequence to Supernova, Proceedings of IAU Symposium #212, held 24-28 June 2001 in Lanzarote, Canary island, Spain. Edited by Karel van der Hucht, Artemio Herrero, and Esteban, César. San Francisco: Astronomical Society of the Pacific, p.757 (2003)

Weis K.: The physical structure of the Outer Ejecta and the Strings, ETA CARINAE WORKSHOP, Mt. Rainier WA (electronic proceedings) (2003)

Winters, J.M., Blöcker, T., Hofmann, K.-H., Weigelt, G.: Interpreting the evolving clumpy shell structure of IRC+10216 in terms of time dependent dust shell models, Planetary Nebulae: Their Evolution and Role in the Universe, 2002, IAU Symp. 209, Dopita, M., Kwok, S., Sutherland, R. (eds.), ASP, **209**, p.127 (2003)

Winters, J.M.: Confronting consistent dust shell models with observations of long-period variable stars, in Workshop on Mass-losing pulsating stars and their circumstellar matter, Sendai, Japan, May 13-16, 2002, Y. Nakada, M. Honma (eds.), p. 151-158 (2003)

Wittkowski, M., Duschl, W.J., Hofmann, K.-H., Men'shchikov, A., and Weigelt, G.: Interferometric studies of nearby galactic centers , Interferometry for Optical Astronomy II, SPIE Conf., Vol 4838, Traub, W.A. (ed.), 1378-1388 (2003)