

Publications in scientific journals & recent meeting abstracts:

Surface composition and temperature of the TNO Orcus

Barucci, M. A., Merlin, F., Guilbert, A., de Bergh, C., Alvarez-Candal, A., Hainaut, O., Doressoundiram, A., Dumas, C., Owen, T., Coradini, A. 2008. *A&A*, 479, 13.

Near-infrared mapping and physical properties of the dwarf-planet Ceres

Carry, B., Dumas, C., Fulchignoni, M., Merline, W. J., Berthier, J., Hestroffer, D., Fusco, T., Tamblyn, P. 2008. *A&A*, 478, 235.

Origin of volatiles in the main belt

Mousis, O., Alibert, Y., Hestroffer, D., Marboeuf, U., Dumas, C., Carry, B., Horner, J., Selsis, F. 2008. *MNRAS*, 383, 1269.

Laser Guide Star Adaptive Optics without Tip-tilt

Davies, R.; Rabien, S.; Lidman, C.; Le Louarn, M.; Kasper, M.; Forster Schreiber, N. M.; Roccatagliata, V.; Ageorges, N.; Amico, P.; Dumas, C.; Mannucci, F. 2008. To appear in the *ESO Messenger*, 131.

Surface composition of the largest dwarf planet 136199 Eris (2003 UB313)

Dumas, C., Merlin, F., Barucci, M. A., deBergh, C., Hainaut, O., Guilbert, A., Vernazza, P., Doressoundiram, A. 2007. *A&A*, 471, 331.

Direct measurement of the size, shape, and pole of 511 Davida with Keck AO in a single night

Conrad, A. R., Dumas, C., Merline, W. J., Drummond, J. D., Campbell, R. D., Goodrich, R. W., Le Mignant, D., Chafee, F. H., Fusco, T., Kwok, S. H., and Knight, R. I. 2007. *Icarus*, 191, 616.

Properties of the icy surface of the TNO 136108 (2003 EL61)

Merlin, F., Guilbert, A., Dumas, C., Barucci, M. A., de Bergh, C., and Vernazza, P. 2007. *A&A*, 466, 185.

Io Volcanism Seen by New Horizons: A Major Eruption of the Tvashtar Volcano

Spencer, J. R., Stern, S. A., Cheng, A. F., Weaver, H. A., et al. (and 13 co-authors). 2007. *Science*, 318, 240.

Observing Planetary Systems

Sterzik, M., and Dums, C. 2007. *The Messenger*, 128, 73.

The Search for Trojan Binaries

Merline, W. J., Tamblyn, P. M., Dumas, C., Close, L. M. et al. (and 8 co-authors). 2007. *AAS/DPS*, 60.09.

Asteroid 2 Pallas Physical Properties from Near-Infrared High-Angular Resolution Observations

Carry, B., Kaasalainen, M., Dumas, C., Berthier, J., Merline, W. J., Conrad, A., Hestroffer, D., Fulchignoni, M., and Erard, S. 2007. *AAS/DPS* 30.08.

Comparison of Three Asteroid Limb Profiles

Conrad, A. R., Dumas, C., Merline, W. J., Drummond, J. D., Campbell, R. D., Goodrich, R. W., Le Mignant, D., Chafee, F. H., Kwok, S. H., and Knight, R. I. 2007. *LPI*, 1338, 1492.

Sinfoni Observations Of Small Solar System Bodies: Application To The Asteroid Vesta And Pluto's Satellite Charon.

Dumas, C., Merline, W. J., Barucci, A., deBergh, C., Carry, B., Fulchignoni, M., Guilbert, A., Merlin, F. 2006. 38th AAS-DPS, Pasadena, USA, from Oct. 8-13, 2006, 59.05.

Spectroscopic Analyses Of The Bright TNOs 2003 UB313 And 2003 EL61

Merlin, F., Dumas, C., Barucci, A., Hainaut, O., deBergh, C., Guilbert, A. 2006. 38th AAS-DPS, Pasadena, USA, from Oct. 8-13, 2006, 40.02.

Limits to the abundance of surface CO₂ ice on Titan

Hartung, M., Herbst, T. M., Dumas, C., Coustenis, A. 2006. Journ. Geophys. Rev., 111, E7, S09.

An optical supernova associated with the X-ray flash XRF 060218

Pian, E., Mazzali, P. A., Masetti, N., Ferrero, P., Klose, S., Palazzi, E., Ramirez-Ruiz, E., Woosley, S. E., Kouveliotou, C., Deng, J., et al. (35 co-authors). 2006. Nature, 442, 1011

ESO-VLT observations of Charon and large TNOs with SINFONI: An analysis of their surface composition

Dumas, C., Hainaut, O., Barucci, A., deBergh, C., Merlin, F., Guilbert, A. International Workshop on Trans-Neptunian Objects. Dynamical and Physical properties. To be held in Catania, Italy, July 3-7 2006.

Rotation and Morphology of Asteroid 511 Davida

Conrad, A. R., Dumas, C., Merline, W. J., Campbell, R. D., Goodrich, R. W., Le Mignant, D., Chaffee, F. H., Fusco, T., Kwok, S., Knight, R. I. 2006. LPI XXXVII, 1955.

Data flow operations and quality control of SINFONI

Hummel, W., Modigliani, A., Szeifert, T., Dumas, C. 2006. New Astron. Rev., 50, 412.

The nature of Europa's dark non-ice surface material: Spatially-resolved high spectral resolution spectroscopy from the Keck telescope

Spencer, J. R., Grundy, W. M., Dumas, C., Carlson, R. W., McCord, T. B., Hansen, G. B., Terrile, R. J. 2006. Icarus, 182, 202.

Koronis binaries and the role of families in binary frequency

Merline, W. J., Tambllyn, P. M., Nesvorny, D., Durda, D. D., Chapman, C. R., Dumas, C., Owen, W. M., Storrs, A. D., Close, L. M., Menard, F. 2005. AAS-DPS. 37.0307.

An Infrared Coronagraphic Survey for Substellar Companions

Lowrance, P. J., Becklin, E. E., Schneider, G., Kirkpatrick, J. D., Weinberger, A. J., Zuckerman, B., Dumas, C., Beuzit, J.-L., Plait, P., Malumuth, E., Heap, S., Terrile, R. J., Hines, D. C. 2005. AJ, 130, 1845.

A companion to AB Pic at the planet/brown dwarf boundary

Chauvin, G., Lagrange, A.-M., Zuckerman, B., Dumas, C., Mouillet, D., Song, I., Beuzit, J.-L., Lowrance, P., Bessell, M. S. 2005. A&A, 438, 29.

Giant planet companion to 2MASSW J1207334-393254

Chauvin, G., Lagrange, A.-M., Dumas, C., Zuckerman, B., Mouillet, D., Song, I., Beuzit, J.-L., Lowrance, P. 2005. A&A, 438, 25.

SINFONI in the Galactic Center: Young Stars and Infrared Flares in the Central Light-Month

Eisenhauer, F., Genzel, R., Alexander, T., Abuter, R., Paumard, T., Ott, T., Gilbert, A., Gillessen, S., Horrobin, M., Trippe, S., Bonnet, H., Dumas, C., Hubin, N., Kaufer, A., Kissler-Patig, M., Monnet, G., Ströbele, S., Szeifert, T., Eckart, A., Schödel, R., Zucker, S. 2005. ApJ, 628, 246.

Astrometric and spectroscopic confirmation of a brown dwarf companion to GSC 08047-00232. VLT/NACO deep imaging and spectroscopic observations

Chauvin, G., Lagrange, A.-M., Lacombe, F., Dumas, C., Mouillet, D., Zuckerman, B., Gendron, E., Song, I., Beuzit, J.-L., Lowrance, P., Fusco, T. 2005. A&A, 430, 1027.

First science with SINFONI

Gillessen, S., Davies, R., Kissler-Patig, M., Lehnert, M., van der Werf, P., Nowak, N., Eisenhauer, F., Abuter, R., Horrobin, M., Gilbert, A., Genzel, R., Bender, R., Saglia, R., Lemoine-Busserolle, M., Reunanen, J., Kjaer, K., Messineo, M., Nuernberger, D., Dumas, C. 2005. The Messenger, 120, 26.

A giant planet candidate near a young brown dwarf. Direct VLT/NACO observations using IR wavefront sensing

Chauvin, G., Lagrange, A.-M., Dumas, C., Zuckerman, B., Mouillet, D., Song, I., Beuzit, J.-L., Lowrance, P. 2004. A&A, 425, 29.

Discovery of binaries among small asteroids in the Koronis dynamical family using the HST Advanced Camera for Surveys

Merline, W. J., Tambllyn, P. M., Nesvorny, D., Durda, D. D., Chapman, C. R., Dumas, C., Storrs, A. D., Feldman, B., Owen, W. M., Close, L. M., Menard, F. 2004. AAS-DPS, 36.4601.

Hubble Space Telescope NICMOS Multiband Photometry of Proteus and Puck

Dumas, C., Smith, B. A., Terrile, R. J. 2003. AJ, 126, 1080.

Adaptive optics imaging survey of the Tucana-Horologium association

Chauvin, G., Thomson, M., Dumas, C., Beuzit, J.-L., Lowrance, P., Fusco, T., Lagrange, A.-M., Zuckerman, B., Mouillet, D. 2003. A&A, 404, 157.

No disk needed around HD 199143 B

Chauvin, G., Fusco, T., Lagrange, A.-M., Mouillet, D., Beuzit, J.-L., Thomson, M., Augereau, J.-C., Marchis, F., Dumas, C., Lowrance, P. 2002. A&A, 394, 219.

Astrometry and Near-Infrared Photometry of Neptune's Inner Satellites and Ring Arcs

Dumas, C., Terrile, R. J., Smith, B. A., Schneider, G. 2002. AJ, 123, 1776.

Hubble Space Telescope NICMOS spectroscopy of Charon's leading and trailing hemispheres

Dumas, C., Terrile, R. J., Brown, R. H., Schneider, G., Smith, B. A. 2001. AJ, 121, 1163.

Vesta

Dumas, C. 2000. Encyclopedia of Astronomy, Institute of Physics Publishing.

Adaptive optics observations of Saturn's ring-plane crossing in August 1995

Roddier, F., Roddier, C., Brahic, A., Dumas, C., Graves, G. E., Northcott, M. J., Owen, T. 2000. Icarus, 143, 299.

The Crossings of Saturn Ring Plane by the Earth in 1995: Ring Thickness

Poulet, F., Sicardy, B., Dumas, C., Jorda, L., Tiphène, D. 2000. Icarus, 145, 147.

Stability of Neptune's ring arcs in question

Dumas, C., Terrile, R. J., Smith, B. A., Schneider, G., Becklin, E. E. 1999. *Nature*, 400, 733.

Discovery of a moon orbiting the asteroid 45 Eugenia

Merline, W. J., Close, L., Dumas, C., Chapman, C. R., Roddier, F., Menard, F., Slater, D. C., Duvert, G., Shelton, C., Morgan, T. 1999. *Nature* 401, 565.

Near-Infrared Spectroscopy of Low Albedo Surfaces in the Solar System: Search for the Spectral Signature of Dark Material

Dumas, C., Owen, T., Barucci, A. 1998. *Icarus*, 133, 221.

La surface des petits corps du système solaire: Observations spectroscopiques et imagerie à haute résolution angulaire"

Dumas, C. 1997. PhD Thesis, University of Paris VII.

A History of High-Temperature Io Volcanism at the Start of the Galileo Tour

Spencer, J. R., Stansberry, J. A., Dumas, C., Pregler, R., Vakil, D., Hicks, M., Heige, K. 1997. *Geophys. Res. Letters*, 24, 2451.

Violent Silicate Volcanism on Io in 1996

Stansberry, J. A., Spencer, J. R., Howell, R. R., Dumas, C., Vakil, D. 1997. *Geophys. Res. Letters*, 24, 2455.

First Ground-Based Adaptive Optics Observations of Neptune and Proteus

Roddier, F., Roddier, C., Brahic, A., Dumas, C., Graves, G. E., Northcott, M. J., Owen, T. 1996. *Planet. Space Sci.*, 45, 1031.

Infrared Spectroscopy of Jupiter's Atmosphere after the A and E Impacts of Comet Shoemaker-Levy9

Kim, S. J., Orton, G. S., Dumas, C., Kim, Y. H. 1996. *Icarus*, 120, 326.

First Ground-Based Mapping of the Asteroid Vesta

Dumas, C., Hainaut, O. R. 1996. *The Messenger*, 84, 13