ExoPlanet News
An Electronic Newsletter

No. 14, December 1st, 2008

Editors: Andrew J. Norton
Glenn J. White
Dept. of Physics & Astronomy, The Open University, Milton Keynes MK7 6AA, UK
exoplanet@open.ac.uk, http://exoplanet.open.ac.uk/

Contents

1 Editorial

Welcome to the fourteenth edition of ExoPlanet News, an electronic newsletter reporting the latest developments and research outputs in the field of exoplanets.

As the relatively short astro-ph list in this edition shows, there seem to have been fewer exoplanet papers published in the last month than in previous months. However, there have been exciting developments nonetheless and November has seen the publication of spectacular images of exoplanets around HR8799, Fomalhaut and beta Pictoris. We're very pleased that the authors of two of these studies sent their abstracts for inclusion in this edition of the ExoPlanet Newsletter – in case you haven't seen them yet!

Remember that past editions of this newsletter, submission templates and other information can be found at the ExoPlanet News website: http://exoplanet.open.ac.uk . As ever, we rely on you, the subscribers of the newsletter, to send us your abstracts of recent papers, conference announcements, thesis abstracts, job adverts etc for each edition.

Please send anything relevant to exoplanet@open.ac.uk, and it will appear in the next edition. Given the imminent holiday season, we plan to send out the next edition at the beginning of February 2009.

Best wishes
Andrew Norton & Glenn White
The Open University

2 Abstracts of refereed papers

Dust in the inner regions of debris disks around A stars

R.L. Akeson[1], D.R. Ciardi[1], R. Millan-Gabet[1], A. Merand[2,3], E. Di Folco[4], J.D. Monnier[5], C.A. Beichman[1], O. Absil[6], J. Aufdenberg[7], H. McAlister[2], T. ten Brummelaar[2], J. Sturmann[2], L. Sturmann[2], N. Turner[2]

[1] Michelson Science Center, Caltech, Pasadena, CA 91125
[2] Center for High Angular Resolution Astronomy, Georgia State Uni versity, Atlanta, GA 30302
[3] current address: European Southern Observatory, Alonso de Cordo va 3107, Casilla 19001, Vitacura, Santiago 19, Chile
[4] Observatoire de Geneve, Universite de Geneve, Chemin des Maillettes 51, 1290 Sauverny, Switzerland
[5] Department of Astronomy, University of Michigan, Ann Arbor, MI4 8109
[6] LAOG, CNRS and Universite Joseph Fourier, BP 53, F-38041, Greno ble, France
[7] Physical Sciences Department, Embry-Riddle Aeronautical Univers ity, Daytona Beach, FL 32114

Astrophysical Journal, in press (arXiv:0810.3701)

We present infrared interferometric observations of the inner regions of two A-star debris disks, beta Leo and zeta Lep, using the FLUOR instrument at the CHARA interferometer on both short (30 m) and long (>200 m) baselines. For the target stars, the short baseline visibilities are lower than expected for the stellar photosphere alone, while those of a check star, delta Leo, are not. We interpret this visibility offset of a few percent as a near-infrared excess arising from dust grains which, due to the instrumental field of view, must be located within several AU of the central star. For beta Leo, the near-infrared excess producing grains are spatially distinct from the dust which produces the previously known mid-infrared excess. For zeta Lep, the near-infrared excess may be spatially associated with the mid-infrared excess producing material. We present simple geometric models which are consistent with the near and mid-infrared excess and show that for both objects, the near-infrared producing material is most consistent with a thin ring of dust near the sublimation radius with typical grain sizes smaller than the nominal radiation pressure blowout radius. Finally, we discuss possible origins of the near-infrared emitting dust in the context of debris disk evolution models.

Contact: rla@ipac.caltech.edu

Gas accretion onto planetary cores: three-dimensional self-gravitating radiation hydrodynamical calculations

Ben A. Ayliffe, Matthew R. Bate
School of Physics, University of Exeter, Stocker Road, Exeter, EX4 4QL, UK

Monthly Notices of the Royal Astronomical Society, accepted (arXiv: 0811.1259)

We present results from three-dimensional, self-gravitating radiation hydrodynamical models of gas accretion by planetary cores. In some cases, the accretion flow is resolved down to the surface of the solid core – the first time such simulations have been performed. We investigate the dependence of the gas accretion rate upon the planetary core mass, and the surface density and opacity of the encompassing protoplanetary disc. Accretion of planetesimals is neglected.
We find that high-mass protoplanets are surrounded by thick circumplanetary discs during their gas accretion phase but, contrary to locally-isothermal calculations, discs do not form around accreting protoplanets with masses $\lesssim 50$ M$_\oplus$ when radiation hydrodynamical simulations are performed, even if the grain opacity is reduced from interstellar values by a factor of 100. We find that the opacity of the gas plays a large role in determining the accretion rates for low-mass planetary cores. For example, reducing the opacities from interstellar values by a factor of 100 leads to roughly an order of magnitude increase in the accretion rates for $10 - 20$ M$_\oplus$ protoplanets. The dependence on opacity becomes less important in determining the accretion rate for more massive cores where gravity dominates the effects of thermal support and the protoplanet is essentially accreting at the runaway rate. Finally, for low-mass planetary cores ($\lesssim 20$M$_\oplus$), we obtain accretion rates that are in agreement with previous one-dimensional quasi-static models. This indicates that three-dimensional hydrodynamical effects may not significantly alter the gas accretion timescales that have been obtained from quasi-static models.

Download/Website: `http://arxiv.org/abs/0811.1259`

Contact: `ayliffe@astro.ex.ac.uk`

Parameter degeneracies and (un)predictability of gravitational microlensing events

M. Dominik
SUPA, University of St Andrews, School of Physics & Astronomy, North Haugh, St Andrews, KY16 9SS

Monthly Notices of the Royal Astronomical Society, accepted (arXiv:0811.4173)

Some of the difficulties in determining the underlying physical properties that are relevant for observed anomalies in microlensing light curves, such as the mass and separation of extra-solar planets orbiting the lens star, or the relative source-lens parallax, are already anchored in factors that limit the amount of information available from ordinary microlensing events and in the way these are being parametrized. Moreover, a real-time detection of deviations from an ordinary light curve while these are still in progress can only be done against a known model of the latter, and such is also required for properly prioritizing ongoing events for monitoring in order to maximize scientific returns. Despite the fact that ordinary microlensing light curves are described by an analytic function that only involves a handful of parameters, modelling these is far less trivial than one might be tempted to think. A well-known degeneracy for small impacts, and another one for the initial rise of an event, makes an interprediction of different phases impossible, while in order to determine a complete set of model parameters, the fundamental characteristics of all these phases need to be properly assessed. While it is found that the wing of the light curve provides valuable information about the time-scale that absorbs the physical properties, the peak flux of the event can be meaningfully predicted only after about a third of the total magnification has been reached. Parametrizations based on observable features not only ease modelling by bringing the covariance matrix close to diagonal form, but also allow good predictions of the measured flux without the need to determine all parameters accurately. Campaigns intending to

infer planet populations from observed microlensing events need to invest some fraction of the available time into acquiring data that allows to properly determine the magnification function.

Download/Website: http://arxiv.org/abs/0811.4173

Contact: md35@st-andrews.ac.uk

A probable giant planet imaged in the β Pictoris disk

A.-M. Lagrange[1], D. Gratadour[2], G. Chauvin[1], T. Fusco[3], D. Ehrenreich[1], D. Mouillet[1], G. Rousset[2,3], D. Rouan[2], F. Allard[4], É. Gendron[2], J. Charton[1], L. Mugnier[3], P. Rabou[1], J. Montri[3] & F. Lacombe[2]

[1] Laboratoire d'Astrophysique de l'Observatoire de Grenoble, Université Joseph Fourier, CNRS, Grenoble, France
[2] LESIA, Observatoire de Paris, CNRS, Université Pierre et Marie Curie, Université Paris-Diderot, Meudon, France
[3] Office National d'Études et de Recherches Aérospatiales, Châtillon, France
[4] Centre de Recherche Astronomique de Lyon, CNRS, École Normale Supérieure, Université Claude Bernard, Lyon, France

Astronomy & Astrophysics Letters, in press (arXiv:0811.3583)

Since the discovery of its dusty disk in 1984, β Pictoris has become the prototype of young early-type planetary systems, and there are now various indications that a massive Jovian planet is orbiting the star at ~ 10 AU. However, no planets have been detected around this star so far. Our goal was to investigate the close environment of β Pic, searching for planetary companion(s). Deep adaptive-optics L'-band images of β Pic were recorded using the NaCo instrument at the Very Large Telescope. A faint point-like signal is detected at a projected distance of ~ 8 AU from the star, within the North-East side of the dust disk. Various tests were made to rule out with a good confidence level possible instrumental or atmospheric artifacts. The probability of a foreground or background contaminant is extremely low, based in addition on the analysis of previous deep *Hubble Space Telescope* images. The object $L' = 11.2$ apparent magnitude would indicate a typical temperature of $\sim 1\,500$ K and a mass of ~ 8 Jovian masses. If confirmed, it could explain the main morphological and dynamical peculiarities of the β Pic system. The present detection is unique among A-stars by the proximity of the resolved planet to its parent star. Its closeness and location inside the β Pic disk suggest a formation process by core accretion or disk instabilities rather than a binary-like formation process.

Contact: anne-marie.lagrange@obs.ujf-grenoble.fr

Magnetic activity in the photosphere of CoRoT-Exo-2a. Active longitudes and short-term spot cycle in a young Sun-like star

A. F. Lanza [1], I. Pagano[1], G. Leto[1], S. Messina[1], S. Aigrain[2], R. Alonso[3], M. Auvergne[4], A. Baglin[4], P. Barge[3], A. S. Bonomo[1,3,5], P. Boumier[6], A. Collier Cameron[7], M. Comparato[1,5], G. Cutispoto[1], J. R. De Medeiros[8], B. Foing[9], A. Kaiser[10], C. Moutou[3], P. S. Parihar[11], A. Silva-Valio[12], W. W. Weiss[10]

[1] INAF-Osservatorio Astrofisico di Catania, Via S. Sofia, 78, 95123 Catania, Italy
[2] School of Physics, University of Exeter, Stocker Road, Exeter, EX4 4QL, United Kingdom
[3] Laboratoire d'Astrophysique de Marseille, Technopole de Château-Gombert, 38 rue Frédéric Joliot-Curie, 13388 Marseille cedex 13, France
[4] LESIA, CNRS UMR 8109, Observatoire de Paris, 5 place J. Janssen, 92195 Meudon, France
[5] Dipartimento di Fisica e Astronomia, Università degli Studi di Catania, Via S. Sofia, 78, 95123 Catania, Italy
[6] Institut d'Astrophysique Spatiale (IAS), Batiment 121, F-91405 Orsay, France; Université Paris-Sud 11 and CNRS (UMR 8617)
[7] School of Physics and Astronomy, University of St. Andrews, North Haugh, St Andrews, Fife Scotland KY16 9SS
[8] Departamento de Física, Universidade Federal do Rio Grande do Norte, 59072-970 Natal, RN, Brazil
[9] ESA/ESTEC/SRE-S, Postbus 299, 2200 AG Noordwijk, The Netherlands
[10] Institut für Astronomie, Universität Wien, Türkenschanzstraße 17, 1180, Vienna, Austria
[11] Indian Institute of Astrophysics, Block II, Koramangala, Bangalore, 560034 India
[12] CRAAM, Universidade Presbiteriana Mackenzie, Rua da Consolação, 896, São Paulo, SP, 01302, Brazil

Astronomy & Astrophysics, in press (arXiv:0811.0461)

The space experiment CoRoT has recently detected transits by a hot Jupiter across the disc of an active G7V star (CoRoT-Exo-2a) that can be considered as a good proxy for the Sun at an age of approximately 0.5 Gyr. We present a spot modelling of the optical variability of the star during 142 days of uninterrupted observations performed by CoRoT with unprecedented photometric precision. We apply spot modelling approaches previously tested in the case of the Sun by modelling total solar irradiance variations, a good proxy for the optical flux variations of the Sun as a star. The best results in terms of mapping of the surface brightness inhomogeneities are obtained by means of maximum entropy regularized models. To model the light curve of CoRoT-Exo-2a, we take into account the photometric effects of both cool spots and solar-like faculae, adopting solar analogy. Two active longitudes initially on opposite hemispheres are found on the photosphere of CoRoT-Exo-2a with a rotation period of 4.522 ± 0.024 days. Their separation changes by $\approx 80^\circ$ during the time span of the observations. From this variation, a relative amplitude of the surface differential rotation lower than ~ 1 percent is estimated. Individual spots form within the active longitudes and show an angular velocity ~ 1 percent lower than that of the longitude pattern. The total spotted area shows a cyclic oscillation with a period of 28.9 ± 4.3 days, which is close to 10 times the synodic period of the planet as seen by the rotating active longitudes. We discuss the effects of solar-like faculae on our models, finding indications of a facular contribution to the optical flux variations of CoRoT-Exo-2a being significantly smaller than in the present Sun. The implications of such results for the internal rotation of CoRoT-Exo-2a are discussed, based on solar analogy. A possible magnetic star-planet interaction is suggested by the cyclic variation of the spotted area. Alternatively, the 28.9-d cycle may be related to Rossby-type waves propagating in the subphotospheric layers of the star.

Download/Website: `http://web.ct.astro.it/preprints/`

Contact: `nuccio.lanza@oact.inaf.it`

Direct Imaging of Multiple Planets Orbiting the Star HR 8799

Christian Marois[1,2,3]*, Bruce Macintosh*[2]*, Travis Barman*[4]*, B. Zuckerman*[5]*, Inseok Song*[6]*, Jennifer Patience*[7]*, David Lafrenière*[8] *& René Doyon*[9]

[1] NRC Herzberg Institute of Astrophysics, 5071 West Saanich Rd, Victoria, BC, V9E 2E7, Canada
[2] Lawrence Livermore National Laboratory, 7000 East Ave, Livermore, CA 94550, USA
[3] Astronomy Department, University of California, Berkeley, CA 94720, USA
[4] Lowell Observatory, 1400 West Mars Hill Road, Flagstaff, AZ 86001, USA
[5] Physics & Astronomy Department and Center for Astrobiology, University of California, Los Angeles, CA 90095, USA
[6] University of Georgia, Physics and Astronomy, 240 Physics, Athens, GA 30602, USA
[7] University of Exeter, School of Physics, Stocker Road, Exeter, EX4 4QL, UK
[8] Department of Astronomy and Astrophysics, University of Toronto, 50 St. George Street, Toronto, ON, M5S 3H4, Canada
[9] Département de Physique and Observatoire du Mont Mégantic, Université de Montréal, C.P. 6128, Succ. Centre-Ville, Montréal, QC, H3C 3J7, Canada

Science, published (doi:10.1126/science.1166585 / arXiv:0811.2606)

Direct imaging of exoplanetary systems is a powerful technique that can reveal Jupiter-like planets in wide orbits, can enable detailed characterization of planetary atmospheres, and is a key step towards imaging Earth-like planets. Imaging detections are challenging due to the combined effect of small angular separation and large luminosity contrast between a planet and its host star. High-contrast observations with the Keck and Gemini telescopes have revealed three planets orbiting the star HR 8799, with projected separations of 24, 38, and 68 astronomical units. Multi-epoch data show counter-clockwise orbital motion for all three imaged planets. The low luminosity of the companions and the estimated age of the system imply planetary masses between 5 and 13 times that of Jupiter. This system resembles a scaled-up version of the outer portion of our Solar System.

Download/Website: `http://adsabs.harvard.edu/abs/2008arXiv0811.2606M`

Contact: `christian.marois@nrc-cnrc.gc.ca`

3 Conference announcements

13th Microlensing workshop

J.P. Beaulieu[1]*, A. Gould*[2]

[1] Institut d'Astrophysique de Paris, 98bis Bd Arago, 75014 Paris, France
[2] Department of Astronomy, Ohio State University, Columbus, OH 43210, USA

Institut d'Astrophysique de Paris, January 19-21, 2009

The 13th Microlensing Workshop will be a forum to discuss recent work, and exchange ideas and experiences, in all ar eas of gravitational microlensing and its applications. These include (but are not necessarily limited to): cosmological structure and substucture, dark matter, extrasolar planets, intergalactic medium, quasar structure and host galaxies, and stellar abundances. Both theoretical and observational contributions are welcomed.
Abstract due by December 15, 2008.
Final program released on December 22, 2008. Don't delay your registration !

Download/Website: `http://www.iap.fr/microlens2009/`

Contact: `Jean-Baptiste Marquette: marquett@iap.fr`

4 Jobs and positions

Postdoctoral Research Position in High Precision Radial Velocity for Super-Earth Detection

Francois Bouchy[1]*, Guillaume Hebrard*[2]*, Claire Moutou*[3]

[1] Observatoire de Haute Provence, F-04870 St Michel l'Observatoire
[2] Institut d'Astrophysique de Paris, 98bis Bd Arago, F-75014 Paris
[3] Laboratoire d'Astrophysique de Marseille, Site de Chateau Gombert 38, rue Frederic Joliot-Curie, F-13388 Marseille Cedex 13

Haute Provence Observatory, Available immediately

The Institut d'Astrophysique of Paris (IAP) and the Haute Provence Observatory (OHP) have an immediate opening for a two-years postdoctoral research associate to participate to the instrumental upgrade and optimization of SOPHIE high-precision spectrograph based on the 1.93-m OHP telescope as well as the scientific exploitation of different programs related to the detection and characterization of low-mass exoplanets with SOPHIE, HARPS and CoRoT.
The candidate will be based at OHP, and integrated within the science team interested in low-mass exoplanet search and characterization. S/He will contribute to the upgrade and the optimization of the SOPHIE spectrograph including a new guiding system, a new fiber scrambler and a new calibration unit with the help of OHP technical staff. S/He will also participate to the scientific exploitation (observations and data analysis) of the large programs conducted with HARPS, SOPHIE and CoRoT for the search and characterization of low-mass exoplanets. These programs include radial velocity observations as well as ground-based photometry using OHP facilities related to transit search and stellar variability.
The candidate should have a PhD thesis on astrophysics. Preference will be given to applicants who have a background in instrumentation, data reduction and observational astronomy as well as experience in exoplanets and stellar activities.
Contacts :
Francois Bouchy, Observatoire de Haute Provence, F-04870 St Michel l'Observatoire
tel : 33 (0)4 92 70 64 94
e-mail : bouchy@iap.fr

Guillaume Hebrard, Institut d'Astrophysique de Paris, 98bis Bd Arago, F-75014 Paris
tel : 33 (0)1 44 32 80 78
e-mail : hebrard@iap.fr
Claire Moutou, Laboratoire d'Astrophysique de Marseille, Site de Chateau Gombert 38, rue Frederic Joliot-Curie, F-13388 Marseille Cedex 13
tel : 33 (0)4 91 05 59 66
e-mail : Claire.Moutou@oamp.fr

Postdoctoral Position in Exoplanets

Seth Redfield
Astronomy Department, Van Vleck Observatory, Wesleyan University, Middletown, CT 06459, USA

Middletown, CT, USA, Summer/Fall 2009

Applications are invited for a postdoctoral position in exoplanets at Wesleyan University. The successful candidate will work in collaboration with Seth Redfield primarily on high resolution optical spectra of transiting exoplanets obtained with the 9.2-m Hobby-Eberly Telescope. The project is focused on characterizing the atmospheres of extrasolar planets using this rich observational dataset. Other related research areas of mutual interest may include gas absorption in edge-on debris disks and the structure of the local interstellar medium, using ground-based, Hubble, and Spitzer observations. Wesleyan has a Planetary Science Group that includes faculty from several departments. The successful candidate will be encouraged to interact with other faculty and to carry out independent research with full access to observational facilities available to Wesleyan. Experience with data reduction and analysis, high resolution spectroscopy, and observational studies of exoplanets will be helpful. Applicants must have a Ph.D. in astronomy or astrophysics at the start of the appointment.

Wesleyan University is located between New York City and Boston, and has a small but active astronomy program which emphasizes involvement of undergraduate and M.A. students in main-stream astronomical research. We are particularly interested in candidates who feel that they could both contribute to and flourish in this unique educational environment. The postdoc would have the opportunity, if desired, to take advantage of this setting to develop educational skills through mentoring students in research and possibly teaching. Initial appointment would be for two years, with funding for at least one additional year available. The starting date is Summer/Fall 2009; some flexibility can be accommodated. The salary is competitive, and health and retirement benefits and travel allowance are provided. Applicants should send a cover letter, curriculum vitae, bibliography, statement of research experience and interests, and arrange for three letters of reference to be sent electronically (sredfield@wesleyan.edu) or to the address above by 12 December 2008.

Wesleyan University is an equal opportunity, affirmative action employer M/W/D/V and strongly encourages applications from women and minorities

Download/Website: `http://members.aas.org/JobReg/JobDetailPage.cfm?JobID=25040`
Contact: `sredfield@wesleyan.edu`

Postdoctoral Research Position in ExtraSolar Planets

Alex Wolszczan
The Pennsylvania State University, Dept. of Astronomy & Astrophysics, Center for Exoplanets and Habitable Worlds, 525 Davey Laboratory, University Park, PA 16802, USA

The Pennsylvania State University, Available 2009

The Department of Astronomy and Astrophysics, Center for Exoplanets and Habitable Worlds, at the Pennsylvania State University invites applications for two postdoctoral research positions in the areas of formation, detection, and characterization of extrasolar planets. Successful applicants are expected to work with the Center faculty on projects in these areas. The positions are for two years with a possibility of extension for one more year. Applicants should have a Ph.D. in Astronomy or Physics and a promising research record, which includes a demonstrated experience in one or more fields as specified above. An interest and skills in hardware development are also desirable but not required.
The recently launched Center for Exoplanets and Habitable Worlds, hosted by the Department, provides resources to support a variety of extrasolar planet - related activities. It has several affiliates, from three departments, whose research interests include extrasolar planets. Among other assets, the Department is a major partner (25% of the observing time) in the Hobby-Eberly Telescope at the McDonald Observatory. Current information on research and other activities can be found at http://www.astro.psu.edu.
Applications should include a cover letter, a CV, statement of research interests, list of publications, and names of three references, mailed to:
Ms. Erin Eckley, (eckley@astro.psu.edu)
525 Davey Lab, The Pennsylvania State University
University Park, PA 16803
Fax: 814-863-2842
phone: 814-865-0418

Review of applications will begin in November, and the search will continue until positions are filled. We encourage applications from individuals of diverse backgrounds to apply. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce.

Download/Website: `http://www.astro.psu.edu`

Contact: `eckley@astro.psu.edu`

5 As seen on astro-ph

The following list contains all the entries relating to exoplanets that we spotted on astro-ph during November 2008. If you spot any that we missed, please let us know and we'll include them in the next issue.

Exoplanets

astro-ph/0811.0001: **Secular Evolution of HD 12661: A System Caught at an Unlikely Time** by *Dimitri Veras & Eric B. Ford*

astro-ph/0811.0175: **Full Numerical Simulations of Catastrophic Small Body Collisions** by *Zoe M. Leinhardt & Sarah T. Stewart*

astro-ph/0811.0461: **Magnetic activity in the photosphere of CoRoT-Exo-2a. Active longitudes and short-term spot cycle in a young Sun-like star** by *A. F. Lanza, I. Pagano, G. Leto et al*

astro-ph/0811.0673: **Planet formation in the habitable zone of alpha Centauri B** by *Philippe Thebault, Francesco Marzari & Hans Scholl*
astro-ph/0811.0868: **55 Cancri: A Laboratory for Testing Numerous Conjectures about Planet Formation** by *Dimitris M. Christodoulou & Demosthenes Kazanas*
astro-ph/0811.1516: **On the habitability of the OGLE-2006-BLG-109L planetary system** by *Cezary Migaszewski, Krzysztof Gozdziewski & Tobias C. Hinse*
astro-ph/0811.1753: **The X-Ray Environment During the Epoch of Terrestrial Planet Formation: Chandra Observations of h Persei** by *Thayne Currie, Nancy Remage Evans, Brad Spitzbart et al*
astro-ph/0811.1985: **Fomalhaut's Debris Disk and Planet: Constraining the Mass of Fomalhaut b From Disk Morphology** by *E. Chiang, E. Kite, P. Kalas et al*
astro-ph/0811.1994: **Optical Images of an Exosolar Planet 25 Light Years from Earth** by *Paul Kalas, James R. Graham, Eugene Chiang et al*
astro-ph/0811.2443: **MMT/AO 5 micron Imaging Constraints on the Existence of Giant Planets Orbiting Fomalhaut at 13-40 AU** by *Matthew A. Kenworthy, Eric E. Mamajek, Philip M. Hinz et al*
astro-ph/0811.2496: **Diversity among other worlds: characterization of exoplanets by direct detection** by *J. Schneider, A. Boccaletti, A. Aylward et al*
astro-ph/0811.2687: **Repeating microlensing events in the OGLE data** by *J. Skowron, L. Wyrzykowski, S. Mao et al*
astro-ph/0811.2906: **Lithium abundances in exoplanet-host stars : modelling** by *M. Castro, S. Vauclair, O. Richard et al*
astro-ph/0811.2975: **Exoplanets from the CHEPS: Discovery of the Double Planet System HD191760** by *J.S. Jenkins, H.R.A. Jones, J.R. Barnes et al*
astro-ph/0811.3277: **Homogeneous studies of transiting extrasolar planets. II. Physical properties** by *John Southworth*
astro-ph/0811.3583: **A probable giant planet imaged in the Beta Pictoris disk** by *A.-M. Lagrange, D. Gratadour, G. Chauvin et al*
astro-ph/0811.3923: **Stellar activity of planetary host star HD 189733** by *I. Boisse, C. Moutou, A. Vidal-Madjar et al*

Disks

astro-ph/0811.2372: **What can we learn on protoplanetary disks from the analysis of mid-infrared carbonaceous dust emission?** by *O. Berne, C. Joblin, A. Fuente et al*
astro-ph/0811.2687: **Repeating microlensing events in the OGLE data** by *J. Skowron, L. Wyrzykowski, S. Mao et al*
astro-ph/0811.3295: **A dense disk of dust around the born-again Sakurai's object** by *Olivier Chesneau, G.C. Clayton, F. Lykou et al*
astro-ph/0811.3420: **On the origin of eccentricities among extrasolar planets** by *Daniel Malmberg & Melvyn B. Davies*
astro-ph/0811.3520: **Gas Phase diagnostics of Protoplanetary disk extension** by *B. Ercolano, J.J. Drake & C.J. Clarke*
astro-ph/0811.3590: **Silica in Protoplanetary Disks** by *B.A. Sargent, W.J. Forrest, C. Tayrien et al*
astro-ph/0811.3622: **Dust Processing and Grain Growth in Protoplanetary Disks in the Taurus-Auriga Star-Forming Region** by *B.A. Sargent, W.J. Forrest, C. Tayrien et al*
astro-ph/0811.4322: **Three-dimensional simulations of multiple protoplanets embedded in a protostellar disc** by *Paul Cresswell & Richard P. Nelson*

Instrumentation and Techniques

astro-ph/0811.1813: **On the evolution of mean motion resonances through stochastic forcing: Fast and slow libration modes and the origin of HD128311** by *Hanno Rein & John C. B. Papaloizou*

astro-ph/0811.0441: **Introduction to Gravitational Microlensing** by *Shude Mao*
astro-ph/0811.1080: **The seismology programme of CoRoT** by *E. Michel, A. Baglin, M. Auvergne et al*
astro-ph/0811.1808: **Self-Organizing Maps. An application to the OGLE data and the Gaia Science Alerts** by *Lukasz Wyrzykowski & Vasily Belokurov*