

## Erasmus Mundus Masters Course in Astronomy & Astrophysics Editions 3 & 4

The third and fourth editions of the AstroMundus Master course started in autumn 2012 and 2013, respectively. Students of these editions could take advantage of already consolidated practices that were put in place with the previous student cohorts, as well as directly experience improvements to the programme. One of these was the introduction of Academic Advisors at each university of the AstroMundus consortium, as suggested by the external Scientific Advisory Board that visited the programme in December 2012. Scholarships for Edition 3 students were fully funded by the Erasmus Mundus programme of the European Union. In Edition 4, besides the Erasmus Mundus scholarships, additional scholarships were funded by the Austrian Ministry under the programme "Hochschulraum-Struktur Mittel Förderung" and by the University of Innsbruck through the Office of the Vice-Rector for Science.



Edition 3 Welcome Reception – University of Innsbruck  
Students of each edition were welcomed by the programme coordinator and the University authorities with a reception at the historical "Claudiana".



Edition 3 - End of 1<sup>st</sup> semester at the University of Innsbruck  
Edition 4, beginning of 1<sup>st</sup> semester – Excursion to Arzler Alm, Innsbruck



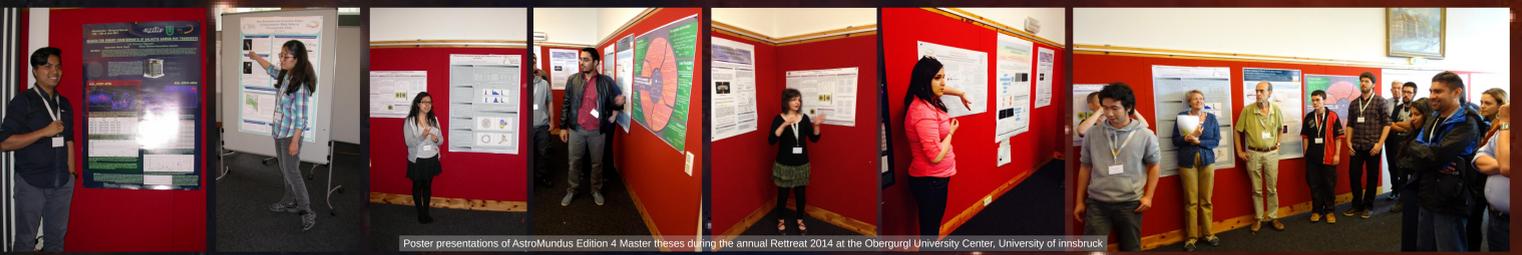
Edition 4 Welcome Reception – University of Innsbruck  
Short excursions and cultural activities were organised to help the international students to familiarise with their new environment.

### AstroMundus Retreat 2014 – Obergurgl University Center Edition 3 thesis presentations and Best Master Thesis award



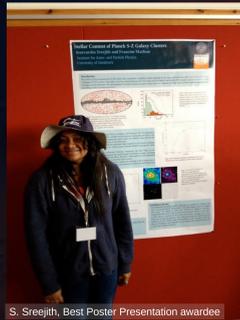
AstroMundus Retreat 2014 – Editions 3 & 4 - Obergurgl University Center, University of Innsbruck

The AstroMundus Retreat 2014 took place again at the Obergurgl University Center in the Austrian Alps. Edition 3 students presented their Master thesis projects to representatives and researchers of all Consortium universities and to their peers from Edition 4. Thesis topics included magnetic activity in stars, active galactic nuclei and quasars, supermassive black holes, galaxy structure, gamma-ray transients, high redshift sources, galaxy clusters, cosmological simulations, cosmological models, dark matter, magneto-hydrodynamic simulations of stellar winds, telescope instrumentation.



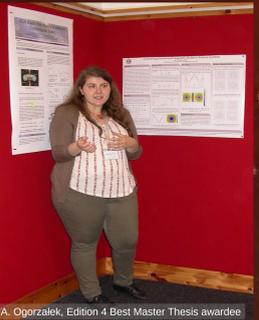
Poster presentations of AstroMundus Edition 4 Master theses during the annual Retreat 2014 at the Obergurgl University Center, University of Innsbruck

For the first time with Edition 3, a prize was introduced for the best poster presentation. A jury of 3 staff members evaluated the posters, the short oral presentations and the answers to the questions asked by the audience. The Edition 3 prize was awarded to Sreevarsha Sreejith, author of the thesis "Stellar Mass Content of Planck Sunyaev-Zel'dovich Galaxy Clusters", supervised by Prof. Schindler, University of Innsbruck. Sreevarsha is now completing her PhD in Innsbruck and will move in autumn 2018 to the University of Clermont Auvergne, France, as a postdoctoral researcher.



S. Sreejith, Best Poster Presentation awardee

The AstroMundus prize for the Best Master Thesis of Edition 4 was awarded to Anna Ogorzalek who wrote the thesis "MHD Simulations of Colliding Stellar Winds in Binary Systems" supervised by Dr R. Kissmann at the University of Innsbruck. Anna moved to Stanford University, USA, as a PhD student.



A. Ogorzalek, Edition 4 Best Master Thesis awardee

### AstroMundus Retreat 2015 – L'Aquila, Gran Sasso Science Institute Edition 4 thesis presentations & visit to the Gran Sasso National Laboratories



AstroMundus Retreat 2015 – Editions 4 and 5 – Gran Sasso Science Institute, L'Aquila, Italy



Visit to the Gran Sasso National Laboratories – Italian National Institute for Nuclear Physics



Excursion in the Gran Sasso National Park



Poster presentations of Master thesis projects of Edition 4 students at the AstroMundus Retreat 2015, Gran Sasso Science Institute

The AstroMundus Retreat 2015 was particularly rich of events. It was hosted for the first time by the INFN-Gran Sasso Science Institute (GSSI) in L'Aquila, Italy, one of the new Consortium Associated Partners officially welcomed by AstroMundus in this occasion. GSSI organised a guided tour to the INFN – Gran Sasso National Laboratories, an exciting experience both for students and staff. An excursion to the beautiful Gran Sasso National Park concluded the retreat. A special guest was Prof. J. Palouš (Czech Academy of Sciences), a representative of the external Scientific Advisory Board of the programme, who interacted with all students from Editions 4 and 5 and gave a motivating closing lecture. Edition 4 Master theses covered a large variety of topics and the presentations were of very high quality, so the appointed committee had a hard time in selecting the best poster presentation. The two equal merit winners were Miles Timpe and Aleksandar Cikota.

Miles wrote the thesis "A new age-period-activity relation for M dwarfs: implications for planetary habitability" at the University of Göttingen. After graduation he moved to the University of Zurich as PhD student within the Swiss exoplanet consortium. Aleksandar Cikota wrote the thesis "A Study of the Effect of Host Galaxy Extinction on the Colors of Type Ia Supernovae" under supervision of Prof. F. Malleau at the University of Innsbruck and carried out part of the project at the Space Telescope Science Institute, in Baltimore. Aleksandar was also awarded the AstroMundus prize for the Best Master Thesis of Edition 4. After completion of a PhD as ESO fellow at the IMPRS Garching, Germany, Aleksandar has now started a post-doc at the Lawrence Berkeley National Laboratory in the USA.



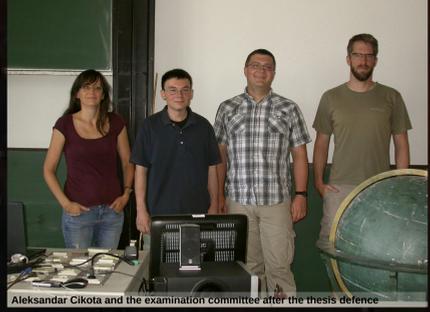
Aleksandar Cikota and Miles Timpe, winners of the prize for the best poster presentation of the Master thesis project, AstroMundus Retreat 2015



Aleksandar Cikota, awardee of the Best Master Thesis prize of Edition 4



Aleksandar Cikota's thesis defence, University of Innsbruck



Aleksandar Cikota and the examination committee after the thesis defence