

## ARIADNA NEWS

### Ariadna Call for Proposals 2013/02 released

The team is looking for academic research partners in two research topics:

- **Automatic extraction and characterization of structures in area-preserving maps**  
([Study description](#))
- **Space-based femtosecond laser filamentation**  
([Study description](#))

Submission deadline: **19<sup>th</sup> August 2013**

Ariadna studies target university researchers interested to join the ACT for collaborative joint research. These studies are particularly suited for researchers not yet linked to space or ESA. ([More information](#), [AO7547](#))

### Recent and Ongoing Ariadna Studies

The ACT has teamed up with universities for the following research topics:

- Climate tipping points: Detection and analysis of patterns using an ordinal regression approach with [University of Cordoba, Department of Computer Science](#)

[Study Description](#)

[ACT Youtube channel](#) with Ariadna executive presentations

## ACT PERSONNEL

In past few months Christos Veziris and Markus Schoelmerich left the team. In the same time we had 6 new colleagues to join our team.

Current ACT team members are Aurélie Héritier, Johannes Simon, Marcus Mörtens, Sante Carloni, Annalisa Riccardi, Francisco Fernández-Navarro, Isabelle Dicaire, Matthias Gerstgrasser, Wiktor Piotrowski, Daniel Hennes, Thijs Versloot, Tom Gheysens, Beniamino Abis, Hermann Heimonen, Waldemar Franczak, Zivile Dalikaite, Dario Izzo and Leopold Summerer ([all ACT members](#)).

## ACT NEWS

### Astro Drone

Contribute to science by playing our Astro Drone game! While flying with your Parrot®AR drone in the real world, you are performing a space missions in augmented reality and teach our algorithms to learn distances. More information can be found [here](#).

### IJCAI 2013 – Workshop on AI in Space

The Advanced Concepts Team is co-organizing the workshop "Artificial Intelligence for Space Applications" at the International Joint Conference on Artificial Intelligence 2013 in Beijing. The workshop is a joint collaboration

between ACT, JPL and HKUST. More information can be found [here](#).

### PaGMO/PyGMO accepted in GSOC 2013

[PaGMO/PyGMO](#) has been accepted as mentoring organization in the [Google Summer of Code 2013](#). Google assigned to PaGMO/Pygmo a total of 5 slots for students to spend their summer coding.

### SOCIS 2013 – Summer of code in space

[SOCIS 2013](#) offers student developers stipends to write code for various space-related open source software projects during summer. Through SOCIS, accepted student are paired with a mentor or mentors from the participating projects, thus gaining exposure to real-world space -realized software development scenarios. Program timeline can be found [here](#).

## GENERAL ESA NEWS

### Invitations to Tender (ITTs)

The European Space Agency periodically issues Invitations to Tender on a broad range of subject areas and activity types. A list of both upcoming and currently open ITTs can be accessed at [EMITS](#).

Some potentially interesting studies for universities include:

- [AO7116](#) Uninterrupted hand-over between ground stations during immersive telerobotics real-time control phases
- [AO7577](#) Ocean surface current mission study
- [AO7570](#) Nonlinear propagation on uncertainties in space dynamics based on taylor differential algebra (PTRP)
- [AO7545](#) Electrical propulsion orbit raising analysis and optimisation tool

## UPCOMING CONFERENCES AND EVENTS

- July 06 – 10, 2013 [Genetic and Evolutionary Computation Conference](#), Amsterdam
- August, 2013 Workshop "AI in Space", Beijing
- 20-25 October 2013: [Workshop Planet Mars IV](#), Les Houches, France

ESA offers European students the opportunity to attend high-level space related conferences and workshops around the world. Opportunities are available across a wide range of science and engineering fields. The full list of conferences for 2013 has now been posted [here](#).

**About the ACT:** The aim of ESA's Advanced Concepts Team is to perform, monitor and foster research on advanced space systems, innovative concepts and working methods.