ARIADNA NEWSLETTER DECEMBER 2007



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ARIADNA NEWS:

CFP 07/01

Two studies from the Ariadna Call for Proposal (CFP) 07/01 started in October 2007.

07/8101 Evolving A Collective Consciousness For A Swarm Of Pico-Satellites, type of study: Medium study: 4 months, 25 KEUR — UNIVERSITE LIBRE DE BRUXELLES

07/4111 **Asteroid Centrifugal Fragmentation**, type of study: Extended study: 6 months, 35 KEUR - OBSERVATOIRE DE NICE

CFP 07/02

Study awards have now been finalised for the Ariadna Call for Proposal (CFP) 07/02. We would like to thank all the teams who submitted proposals and would like to encourage all to participate again. A new Call for Proposal is due to be issued in February/March 2008.

The following teams have been selected to receive contracts under the proposed study areas:

07/4201 Tethered Satellites at the Lagrangian Points, Type of activity: Extended Study (6 months, 35 KEUR) University Politecnica of Madrid

07/1301 Non-Perturbative Effects in Complex Gravitationally Bound Systems, Type of activity: Medium Study (4 months, 25 KEUR) University of Vienna

07/5201 Gossip-Based Strategies in Global Optimisation, Type of activity: Medium Study (4 months, 25 KEUR) University of Szeged

07/6301 Machine/animal Hybrid Controllers for Space Applications, Type of activity: Medium Study (4 months, 25 KEUR) University of Rome – Campus Biomedico

One study is planned to be done by several universities in parallel:

07/7001 Metamaterials for space applications, Type of activity: Medium Study (4 months, 25 KEUR)

ACT News:

Find our newly organized **Newsroom (New page "Subscribe")**, and get a better access to our news releases!

Please visit:

http://www.esa.int/gsp/ACT/index.htm

CONFERENCES/EVENTS ANNOUNCEMENTS

This section contains information on conferences of relevance to advanced space technology and some of the studies we are conducting.

A bridge to Space: ACT Workshop on Innovative Concepts, 28-29th January 2008, ESTEC, Noordwijk, The Netherlands.

Have you ever wondered how a space planetary explorer or a galaxy-staring spacecraft could look like in 20-50 years from now? You will likely be very surprised...

Information on the workshop content and organisation:

http://www.esa.int/gsp/ACT/newsroom/NewsArchive/New28 Jan08 WorkshopInnovativeConcepts.htm

Global Trajectory Optimisation Competition

The Global Trajectory Optimisation Competition, an event organized for the first time by ESA's Advanced Concepts Team, has been held again this year. The competition has been organised by The Aerospace Propulsion group of the Dipartimento di Energetica - Politecnico di Torino as winners of last year's competition.

Information:

http://www.esa.int/gsp/ACT/mad/op/GTOC/index.htm

46th Parabolic Flight Campaign

Date: 18-19-20th December 2007. *Place:* Novespace, Bordeaux, France.

• Experiment:

Validation of non-invasive Brain-Computer Interfaces for astronauts (TT-47/A).

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• Scientific Objective:

The advantages of using non-invasive Brain Computer Interfaces (BCI) in a space environment are numerous, e.g., commands could be sent with high accuracy and without any output delays. The first step to a successful implementation of BCI in space is to demonstrate their efficiency in a microgravity (e.g. onboard the ISS) and/or hypergravity environment (e.g. during launch). For this reason, an experiment on a Microgravity Campaign will be performed.

- Experiment team:
 - Tobias Seidl (ESA/ACT)
 - Luca Rossini (ESA/ACT)
 - Pierre Ferrez (IDIAP, Martigny, Switzerland)
 - Fernando Galán Moles (IDIAP, Martigny, Switzerland)
 - José del R Millan (IDIAP, Martigny, Switzerland)

Information:

http://www.esa.int/esaHS/SEMBWD53R8F_researc

ACT CAREER OPPORTUNITIES

The ACT is currently looking for 2 post-doctoral Research Fellows in the following fields:

 ACT Research Fellowship in Fundamental Physics

Deadline: December 16, 2007.

 ACT Research Fellowship in Artificial Intelligence

Deadline: January 10, 2008.

The ACT is currently looking for four Young Graduate Trainees to work on the following topics:

- Computational Management Science
- Systems Engineering and Technologies
 Assessment Ariadna
- Solar Energy Systems and Sustainability
- Artificial Intelligence for Space Applications

Check our opportunities webpage:

http://www.esa.int/gsp/ACT/opportunities/opportunities.htm

Check also the <u>ESA web-site</u> for the all the YGT opportunities....

For more details on these positions and how to apply, please visit: ACT opportunities

Non-ACT Career Opportunities

Research Fellowship position within the frame of a new satellite communications initiative for Air Traffic Management (Iris) in ESA

Applicants should send their CV and covering letter stating their research interests to Ms. Nathalie Ricard (Nathalie.Ricard@esa.int). The general conditions of eligibility of the ESA Research (Internal) Fellowship Program should be fulfilled (http://www.esa.int/hr/educational/fellow.htm).

All applications will be given consideration until the available post is filled. A first round of interviews is expected to take place in January 2008.

Information on the Iris Programme: www.telecom.esa.int/iris.

Application deadline: December 31st 2007.

All universities from Ariadna's network which would like to advertise about their careers opportunities through the Ariadna's Newsletter are invited to send the corresponding information to Sarah Edwards at act@esa.int

ARIADNA IN SHORT

With Ariadna, ESA intends to strengthen the bond between Academia and ESA by providing opportunities to collaborate and making up-to-date information available on on-going ESA studies and advanced space technology news relevant to the academic world. Check http://www.esa.int/qsp/ACT/ariadna/OpenCalls.htm for news or updates on coming Ariadna call for Proposals.

SPACE TECHNOLOGY NEWS

Periodically the European Space Agency issues Invitations to Tender (ITTs) on a broad range of subject areas and activity types, ranging from scientific and technical studies, to technology development activities or even basic infrastructure support services. A list of both upcoming and currently open ITTs can be accessed at http://emits.esa.int/.