

ARIADNA NEWS: CLARIFICATIONS TO CALL FOR PROPOSALS 05/01

The deadline for **Call for Proposals 05/1** is **15/09/05**. The Advanced Concepts Team has again produced a list of study topics in diverse fields ranging from **Non invasive brain-machine interfaces** to **Space Webs**. Details of all these new ideas and how to submit a proposal are available at: -

http://www.esa.int/gsp/ACT/ariadna/open_calls.htm

Several **clarifications to the calls** have been posted at: -

<http://www.esa.int/gsp/ACT/ariadna/faq.htm>

Solicited studies for CFP 05/01: -

05/2202 **Oxygen extraction from lunar regolith**, Type of activity: Medium Study (4 months, 25 KEUR)

05/2203 **Iron oxide extraction from lunar and Martian regoliths**, Type of activity: Medium Study (4 months, 25 KEUR)

05/3201 **Numerical simulation of the Helicon Double Layer Thruster Concept**, Type of activity: Medium Study (4 months, 25 KEUR)

05/3202 **Advanced Concepts of Electromagnetic Generation, Confinement and Acceleration of High Density Plasma for Propulsion**, Type of activity: Medium Study (4 months, 25 KEUR)

05/3203 **Electrodynamic tether microsats at the giant planets**, Type of activity: Medium Study (4 months, 25 KEUR)

05/4106 **Spiral Trajectories in Global Optimisation of Interplanetary and Orbital Transfers**, Type of activity: Medium Study (4 months, 25 KEUR)

05/4107 **Electrostatic forces for satellite swarm navigation and reconfiguration**, Type of activity: Medium Study (4 months, 25 KEUR)

05/4108 **The Flower Constellation Set and its possible applications**, Type of activity: Extended Study (6 months, 35 KEUR)

05/4109 **Space Webs**, Type of activity: Medium Study (4 months, 25 KEUR)

05/5102 **Information extraction and presentation using interactive agent technologies and text mining tools**, Type of activity: Medium Study (4 months, 25 KEUR)

05/5103 **Formal knowledge representation of the system level spacecraft design domain**, Type of activity: Medium Study (4 months, 25 KEUR)

05/5201 **The application of clouds for modelling uncertainties in robust space system design**, Type of activity: Medium Study (4 months, 25 KEUR)

05/6203 **Bio-inspired distributed system for thermal (or particles) transport**, Type of activity: Extended Study (6 months, 35 KEUR)
N.B. This study description has undergone significant clarification. Details can be found at: -
<http://www.esa.int/gsp/ACT/ariadna/faq.htm>

05/6401 **Strain sensors inspired by campaniform sensilla**, Type of activity: Medium Study (4 months, 25 KEUR)

05/6402 **Non invasive brain-machine interfaces**, Type of activity: Short Study (2 months, 15 KEUR)

ADVANCED CONCEPTS TEAM NEWS: 1ST ACT GLOBAL OPTIMISATION COMPETITION AND WORKSHOP ON INNOVATIVE SPACE SYSTEM DESIGNS

Global Optimisation Competition: The ACT wish to challenge groups working in global trajectory optimisation to produce minimum energy solutions to set problems within a restricted time, thereby assessing their method with respect to both the quality of the solution and the effort required.

Innovative Space System Designs: Researchers working at the forefront of space science will be invited to speak about and discuss their ideas for harnessing emerging technologies and theories for the advancement of space mission design.

Announcements regarding these two ACT sponsored events will be made very soon. More details will be available from the ACT homepage

when arrangements have been finalised: -
<http://www.esa.int/gsp/ACT>

ACT CAREER OPPORTUNITIES

The ACT currently has three research fellowships available:

- Mission Analysis and Trajectory Design
(closing date: 30/09/05)
- Advanced Energy Systems
(closing date: 15/09/05)
- Collaborative Open Design
(closing date: 30/09/05)

For more details on these positions and how to apply, go to:
<http://www.esrin.esa.int/gsp/ACT/opportunities.htm>

SPACE TECHNOLOGY CONFERENCES

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

European Solar Physics Meeting - The Dynamic Sun: Challenges for Theory and Observations 11-Sep-2005, Leuven: Belgium
<http://wis.kuleuven.be/cpa/spm11.php>

International Workshop on Global Optimization, September 18-22, Almería: Spain
<http://dali.ace.ual.es/~go05/>

iSAIRAS 2005, 8th International symposium on Artificial Intelligence, Robotics and Automation in Space, 5 - 8 September 2005, Haus der Bayerischen Wirtschaft, München: Germany
<http://www.congrex.nl/05a02/>

The X-ray Universe 2005, 26-Sep-2005, San Lorenzo de El Escorial, Madrid: Spain
<http://www.congrex.nl/05a11/>

5th ESA Round Table on Micro/Nano Technologies for Space, 03-Oct-2005, ESTEC: Netherlands
<http://www.congrex.nl/05c12/>

ARIADNA IN SHORT

With Ariadna, ESA intends to strengthen the bond between Academia and ESA by providing opportunities to work in partnerships 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/ariadna> for news or updates on coming Ariadna call for Proposals.