



Regione Abruzzo
Assessorato
alle Attività Produttive
e all'Innovazione



Provincia dell'Aquila



SPACE OPS ACADEMY
flight dynamics
and ground system
management

Centro Spaziale
del Fucino "Piero Fanti"
65051 Avezzano (AQ) - Italia
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NOVEL SPACEWAYS FOR SCIENTIFIC AND EXPLORATION MISSIONS

a dynamics systems approach
to affordable and sustainable
space applications

mussatti rochi pavese

international workshop

15 - 17 October 2007

Fucino Space Centre - Avezzano Italy
Scuola Superiore Guglielmo Reiss Romoli - L'Aquila Italy

Program

international Workshop

Monday 15 October

Fucino Space Center

12.00 Workshop opening

- GIUSEPPE VEREDICE *Telespazio* CEO
Welcome address

- SYLVIO FERRAZ-MELLO
Universidade de São Paulo - Brazil
Workshop introduction

- RENO MANDOLESI *INAF* - Italy
From Sputnik to Planck

13.00 - 14.30 lunch

• Riding the manifolds

- SILVANO CASINI
ESA Advisor for Space Exploration
Space exploration wide vision.
How science and economy
may work together

- GERARD GOMEZ
University of Barcelona - Spain
Invariant manifolds
and space mission design.
Computational aspects

- MASSIMILIANO GUZZO
University of Padova - Italy
Diffusion through hyperbolic
manifolds in dynamical systems

- EDWARD BELBRUNO
*Princeton University, Innovative
Orbital Design, Inc.* - USA
New types of motions using
resonance transitions and their
applications to space travel

18.30 bus transfer to "Scuola Superiore
Guglielmo Reiss Romoli" (L'Aquila)

20.30 social dinner

Tuesday 16 October

Scuola Superiore Reiss Romoli

• The Lagrangian points of view

- GUIDO DI COCCO *INAF* - Italy
Plan and perspective
of INAF space activities

- FRANCESCO PARESCHE *INAF* - Italy
The Darwin mission: the ultimate
challenge for space astronomy

- MIGUEL BELLÒ MORA
Deimos Space - Spain
Lagrangian points dynamics in
scientific and exploration space
mission design

- VLADISLAV PETROV *IBMP* - Russia
• FRANCO ROSSITTO *Former Head
of ESA Astronaut Center*
Manifolds and radiation safety

12.30 - 14.00 lunch

• One step beyond

- JOSEP J. MASDEMONT
University of Barcelona - Spain
Invariant manifolds and space
mission design. Applications

- CARLES CORRAL VAN DAMME
• MARIELLA GRAZIANO *GMV* - Spain
On the use of the Earth-moon
lagrangian points to support
the manned lunar exploration

- PIERPAOLO PERGOLA *ALTA* - Italy
Three body invariant manifold
transition with electric propulsion

- CHRIS MARTIN
• BRUCE CONWAY
University of Illinois at Urbana
Optimal low-thrust transfer
to a periodic orbit in
the Earth-Moon system

• Concluding speech

Wednesday 17 October

Scuola Superiore Reiss Romoli

• Actions and Angles

9.30 workshop follow-on

Round table discussion

12.30 lunch

14.30 bus transfer to Roma

Conference Chairman

SYLVIO FERRAZ-MELLO
Universidade de São Paulo - Brazil

Organising Committee

Chairman
ETTORE PEROZZI *Telespazio*

ROBERTO BATTISTON *INFN*
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Secretariat
GIANNA FATTORE *Telespazio*

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