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THE
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CONFERENCE

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ng-term Sustainability?

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for the Brijuni Conference, Croatia, 29 August 2022





Imperial College
London

Propulsion Activities at Imperial College London

Aaron Knoll, on behalf of the Imperial Plasma Propulsion Lab

August 29th, 2022

Presented at the Brijuni Conference







Mission

Formation Flight Mission of two 2U-Cube Sats

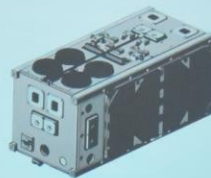
- Ground controlled Helix formation
- Autonomously controlled Helix, In-Track, Along Track and PCO
- 50m closest approach

Technology Demonstration

- Deployable solar panels
- Star Tracker
- S-Band Up/Downlink

Payload

- Camera system with four spectral channels



NanoFF CAD model



Helix Orbit (DLR)





LUNAR GEOLOGY ORBITER (LUGO)

TRL SPACE 

Petr Bohacek | Brijuni Space Conference | 29. – 31. 8. 2022



University of Applied Sciences Wiener Neustadt



in 1994 as the first University of Applied Sciences in Austria

University of Applied Sciences in Lower Austria
Wiener Neustadt, Wieselburg, Tulln, Vienna



Business, Engineering, Health, Sport, Security

Bachelor's & Master's degree programmes

Full-time & part-time

German & English

12,000 graduates

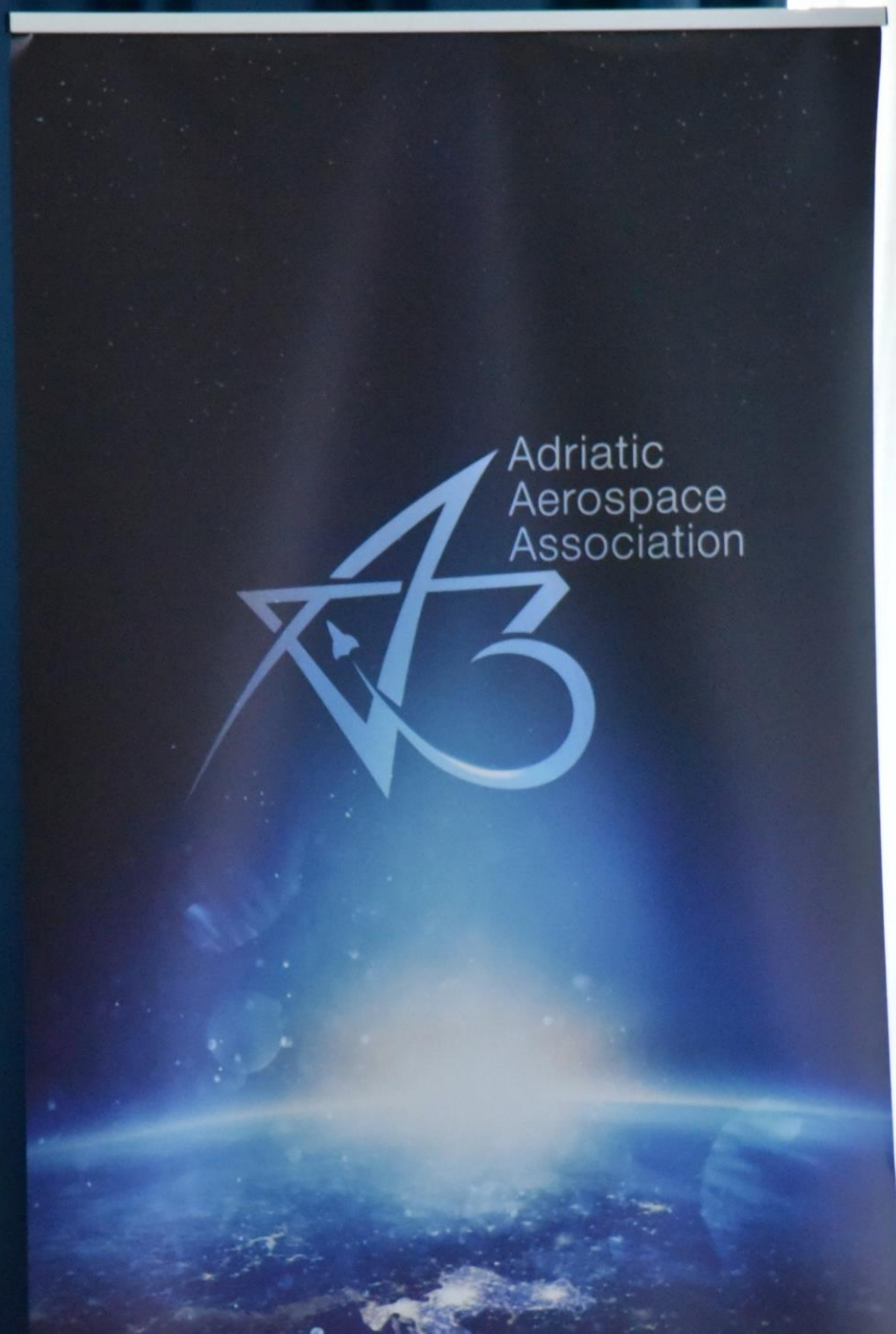
About 3,800 students

1,300 employees

1,300 external lecturers









Scope

- A review of magnetohydrodynamics (MHD) approach to plasma physics is given and numerical simulation of transport equations for fusion phenomena using deterministic-stochastic modeling approach are discussed.
- First, MHD model of plasma confinement based on the finite element solution of non-linear Grad-Shafranov equation (GSE) is outlined, then the transport equations for plasma dynamics are addressed.
- The numerical solution for GSE obtained by Finite Element Method (FEM) is in a satisfactory agreement with the results calculated via Finite Difference Method (FDM).
- Some illustrative computational examples are given.

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Brijuni conference 2022
Chirality and Molecular Signatures of Life:
Detecting and Communicating Life in the Universe

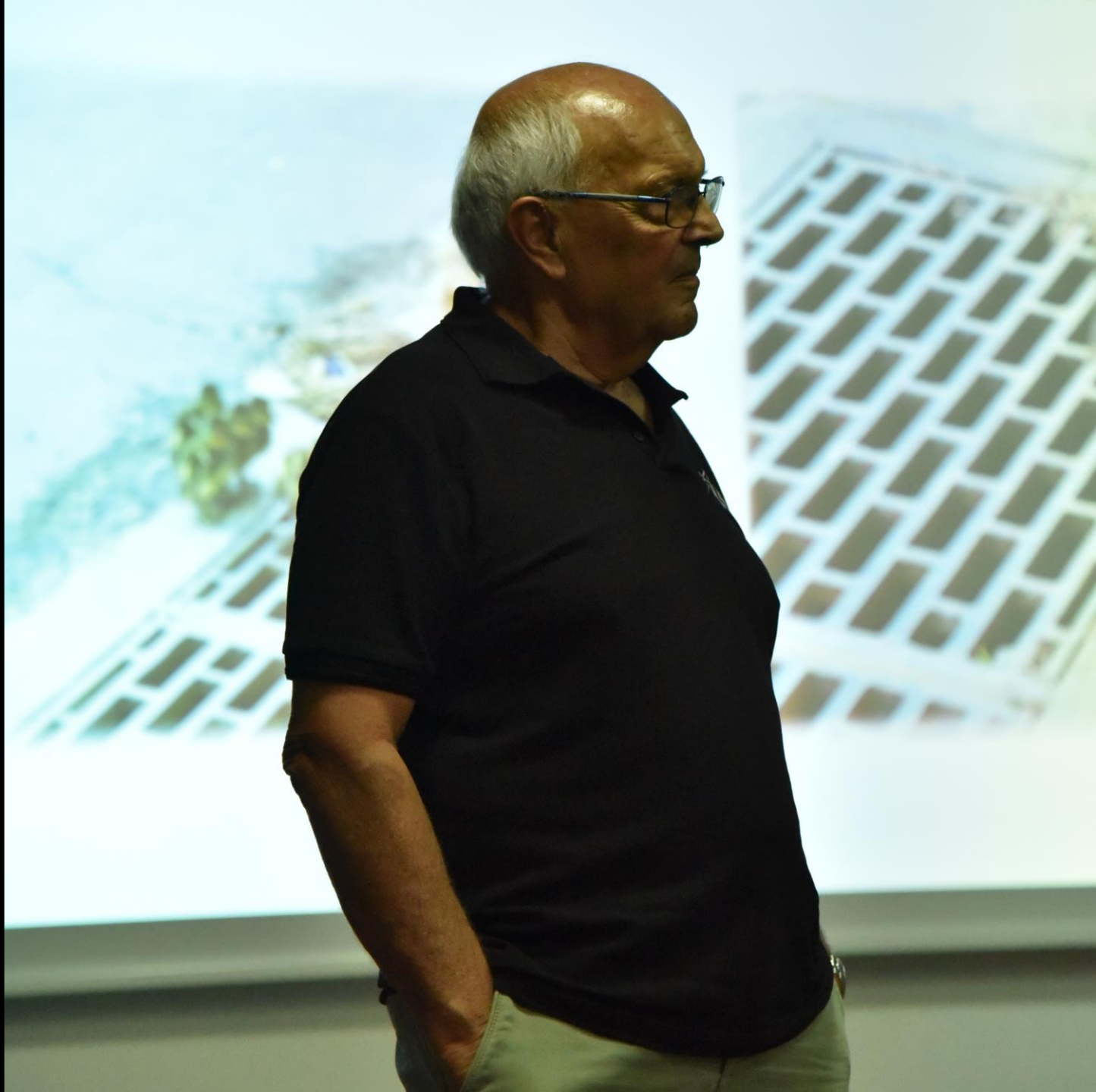
Martin Quack
Physical Chemistry, ETH Zurich, CH-8093 Zurich, Switzerland,
Martin@Quack.CH
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15th Brijuni conference 2022
[Deep space communication navigation and propulsion](#)
Brijuni 29-31 August 2022

Thank you Danko for your sustained effort 1986-2022 and for putting this wonderful place on the map of international science

Adriatic Aerospace Association

Adriatic Aerospace Association





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CONTENTS

- SPACE EXPLORATION: NEED FOR NAVIGATION
- EARLY GNSS TRIALS IN OUTER SPACE
- PRINCIPLE OF GNSS NAVIGATION ABOVE GNSS ALTITUDE
- STUDY RESULTS AND RUNNING PROJECTS
- OTHER MEANS OF GNSS NAVIGATION IN OUTER SPACE
- CONCLUSIONS

The Briuni Conference, 28-31. August 2012

Giuseppe W. Hein

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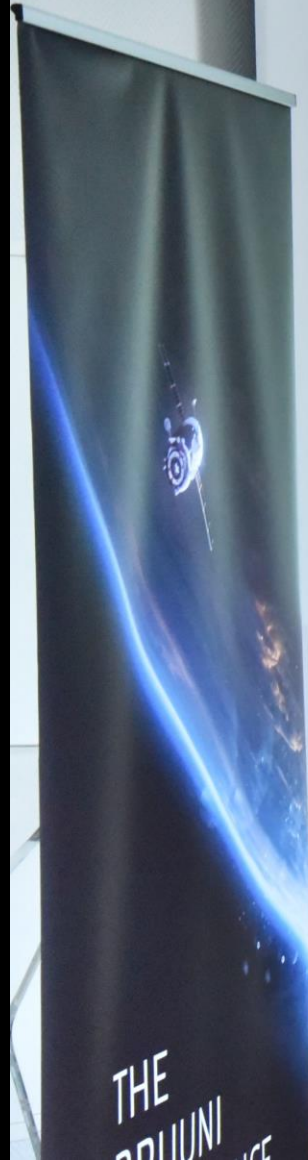
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Relativistic Navigation Satellite System (part 2)

U. Kostić, Aalta Lab
A. Clerici, Aalta Lab
M. Horvat, University of Ljubljana
P. Delva, SYRTE
M. Chatzidakis, SYRTE
J. Fidalgo, GMV
S. Melis, GMV
J. Ventura-Traveset, ESA - Toulouse
L. Mendes, ESA - ESAC
E. Schoeneman, ESA - ESOC
M. Castillo, Serco for ESA - ESAC
F. Martín-Porqueras, Vega for ESA
R. Prieto-Cerdeira, ESA/ESTEC, Directorate of Navigation

This presentation is based on LIFELINE Project and
RPS Experiment project results.
Both projects are European Space Agency funded projects.







ΠΕΡΙΛΗΨΗ ΕΡΕΥΝΑΣ
National and Kapodistrian University of Athens (NKUA)



2nd Campus (Psachna Evia)
1st Campus (Athens)

NKUA
Founded in 1837
• > 50,000 students
• Google Scholar Citations: No. 86
• Webometrics Ranking: No. 180

- Department of Aerospace Science & Technology (Founded 2019)
 - Belongs to the School of Sciences - 1904
 - Satellite mission design, space applications, space technology, smallsats, ...
 - New laboratories on Mechanics, IT, AI, space systems, UAVs, small satellites
 - Forming new partnerships with Si cluster, industry, overseas universities, defence academies
 - Significant new investment in new facilities (labs, satellite ground station)
 - Chairman: Professor Vaios Lappas

Department of Aerospace Science & Technology - NKUA



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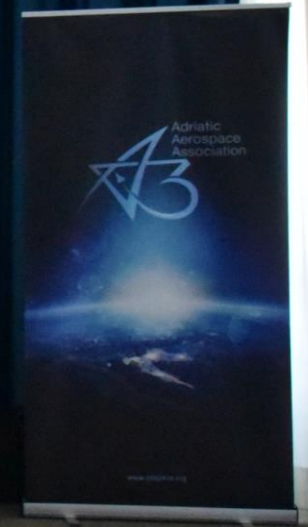


















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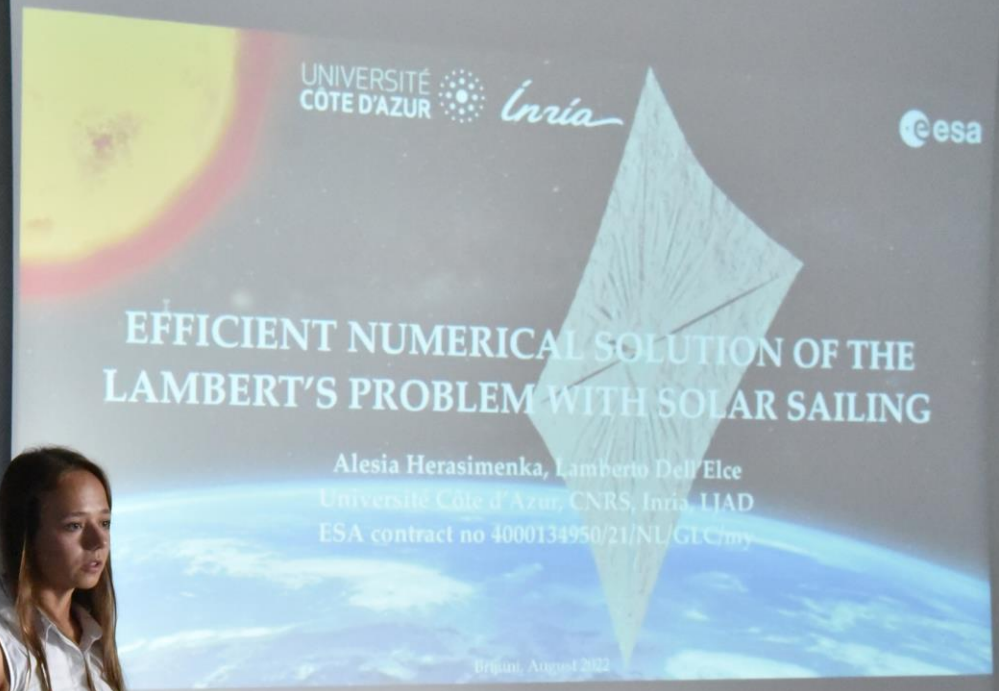
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UNIVERSITÉ CÔTE D'AZUR  Inria 

EFFICIENT NUMERICAL SOLUTION OF THE LAMBERT'S PROBLEM WITH SOLAR SAILING

Alesia Herasimenka, Lamberto Dell'Elce
Université Côte d'Azur, CNRS, Inria, LIAD
ESA contract no 4000134950/21/NL/GTC/my

Brijuni, August 2022





Electric Propulsion for Solar Sails

Dillon O'Reilly



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Space4Earth

How space technologies benefit life on earth

Dr. Susanne Katzler-Fuchs
ESA Technology Transfer Broker Austria



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AB SPACEMINC

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A short history of Brijuni

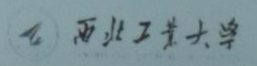


Bertram Achauer-Worberg

Adriatic
Aerospace
Association



View Options



The Development of Hybrid Motor at NPU

Dr. LIU Linlin, A/Prof. LI Yi

School of Astronautics, Northwestern Polytechnical University
Xi' an, China

