

**ISSI FORUM
Performing High-Quality Science on CubeSats
January 19-20, 2016
ISSI, Bern, Switzerland**

Program

The forum will be attended by approximately 30 international researchers who have active experiences in CubeSats and their development.

We intend to focus our discussion on three topics

1. Identify suitable CubeSat missions in a variety of fields and discuss their feasibility and/or science results that have already been achieved.
2. Identify barriers – both technical and otherwise – that limit the science impact of the CubeSat platforms.
3. Characterize limitations of the CubeSat as a platform of science investigations.

To address this purpose, we want to set up our schedule using both topical sessions and open discussion about these three questions. It is our goal to summarize these findings in a White Paper that will be suitably published, and can also be included as an Appendix in the CubeSat document that is developed for the US National Academies.

Sessions will be structured as follows

- 3-6 presentations for 15 minutes, followed by 5 minutes of follow-up questions
- 30-45 minutes of group discussion working towards a consensus opinion on questions 1-3.

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Tuesday, January 19, 2016

9:00-9:30 Check-in, Coffee

9:30-10:00 Welcome, Introduction

Rudolf von Steiger	Welcome to ISSI
Thomas H. Zurbuchen	What we want to achieve
Malcolm Macdonald	Cubesat Technology Capabilities

10:00-12:00 Session 1: Cubesats in Earth Science (chair: Hesse)

Klaus Schilling	Pico-satellite formation flying
Sergey Bartalev	Potential of Cubesats for land cover dynamics study
Anton Ivanov	SwissCube
Xiaolong Dong	Satellite observations for extreme weather and global change
All	Discussion

13:30-14:30 Session 2: Cubesats in Astronomy and Astrophysics (chair: Falanga)

Maurizio Falanga	Introduction
Jingye Yan	Linear Array of Cubesats in Lunar Orbit for Low Frequency Radio Astronomy
All	Discussion

14:30-17:30 Session 3: Cubesats in Solar and Space Physics (chair: von Steiger)

Tim Horbury	MAGIC on CINEMA, lessons learned
Pekka Janhunen	Measuring the tether Coulomb drag effect
Dave Klumpar	FIREBIRD Cubesats
Anatoli Petrukovich	Effective plasma science with Cubesats
Karel Schrijver	Cube- and small-sats and the system science of NASA's Living With a Star program
Michael Hesse	Cubesats: Innovative solutions for Heliophysics Science and Space Weather
All	Discussion

19:30 Dinner at the Kultur-Casino, Bern

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Wednesday, January 20, 2016

9:00-10:30 Session 4: Cubesats in Planetary Science & Microgravity (chair: Rodrigo)

Roger Walker CubeSat Opportunity Payloads on the ESA Asteroid Impact Mission
All Discussion

11:00-13:00 Session 5: Cubesats Technology issues for science (chair: Borgeaud)

Sven Grahn MIST satellite project
Alan Title Boundary between Cubesats and Smallsats
Therese Moretto Jorgensen NSF Cubesats
Anna Gregorio The bottleneck of telecommunication
All Discussion

14:30-16:30 Lessons Learned, Drafting of White Paper (chair: Zurbuchen)

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List of Participants

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