

Dusty Visions 2018

ESAC/Madrid, 30 May to 1 June 2018

Wednesday, 30 May 2018

14:00 - 14:15 **Welcome, Logistics**
Ralf Srama/Harald Krüger/Nicolas Altobelli

Results from space missions/observations

(Chair: Mihaly Horányi)

14:15 - 14:45 **The Dawn of Dust Astronomy**
Eberhard Grün

14:45 - 15:15 **Highlights in 18 years of dust measurements with Cassini CDA**
Ralf Srama

15:15 - 15:30 **Organic material from deep hydrothermal sites on Enceladus**
Frank Postberg

15:30 - 16:00 **Coffee**

Results from space missions/observations (continued)

(Chair: Takafumi Ootsubo)

16:00 - 16:15 **Compositional Analysis of F ring Ice Grains on Cassini's Ring-Grazing Orbits**
Nozair A. Khawaja

16:15 - 16:30 **Mineral dust in the Saturnian system**
Christian Fischer

16:30 - 16:45 **Exogenous Dust at Saturn**
Nicolas Altobelli

16:45 - 17:00 **New Approach to Identify Interstellar and Interplanetary Dust Particles with CDA**
Lena Bötsch/Max Faber

17:00 - 17:15 **Investigation of Interplanetary dust's property using AKARI/IRC**
Aoi Takahashi

17:15 - 17:30 **Discussion**

17:30 - 20:00 **Ice breaker reception**

20:00 **Bus to Moncloa**

Thursday, 31 May 2018

Results from space missions/observations (continued)

(Chair: Amara Graps)

- 09:30 - 09:45 **Exploring the Habitability of Icy Worlds through the Impact Ionization of Icy Dust**
Zoltan Sternovsky
- 09:45 - 10:00 **Observation by the Radio and Plasma Wave Science instrument during the Cassini Mission**
Shengyi Ye
- 10:00 - 10:15 **Student Dust Counter: Status report at 40 AU**
Marcus Piquette
- 10:15 - 10:30 **Mid-infrared observations of cometary silicate dust**
Takafumi Ootsubo
- 10:30 - 10:45 **Dust Detection by Faraday Cups Onboard Spektr-R Revisited**
Samuel Kociscak
- 10:45 - 11:00 **Discussion**
- 11:00 - 11:30 **Coffee**

Dust Modelling

(Chair: Hiroshi Kimura)

- 11:30 - 11:45 **IMEM2: A meteoroid environment model for the inner solar system**
Eberhard Grün
- 11:45 - 12:00 **Dust from Saturnian irregular satellites**
Xiaodong Liu/Jürgen Schmidt
- 12:00 - 12:15 **Abundances of ordinary chondrites as viewed from thermal evolution of planetesimals**
Takaya Nozawa

Interstellar Dust/Origin

(Chair: Harald Krüger)

- 12:15 - 12:30 **CHILI: Measuring s-process molybdenum in presolar grains with unprecedented precision**
Thomas Stephan
- 12:30 - 12:45 **Evidence for Explosive H-Burning from Mg-Isotopes in Silicate and Oxide Stardust: Nova or Supernova Origins?**
Jan Leitner
- 12:45 - 13:00 **Water reservoirs in the solar nebula**
Stephanie Cazaux
- 13:00 - 13:30 **Discussion**
- 13:30 - 14:30 **Lunch**

Interstellar Dust/Origin (continued)

(Chair: Nicolas Altobelli)

- 14:30 - 14:45 **Large Interstellar Dust Polarisation Survey:
On the importance of analyzing single cloud sight-lines**
Ralf Siebenmorgen
- 14:45 - 15:00 **The Interstellar influx from 10^{-19} to the 10^8 kg**
Tony McDonnell
- 15:00 - 15:15 **Formation of supernova-origin presolar SiC grains**
Takaya Nozawa
- 15:15 - 15:30 **Discussion**
- 15:30 - 16:00 **Coffee**

Destiny⁺ DDA

(Chair: Sascha Kempf)

- 16:00 - 16:15 **Dust Astronomy with DESTINY⁺**
Ralf Srama
- 16:15 - 16:30 **Dust flux simulations for Destiny⁺ DDA**
Harald Krüger
- 16:30 - 16:45 **Title tbd**
Hiroshi Kimura
- 16:45 - 17:00 **Impact Ejecta Environment of an Eccentric Asteroid:
3200 Phaethon at 1 AU and Predictions for DESTINY⁺**
Jamey Szalay
- 17:00 - 17:30 **Discussion**
- 18:00 **Bus to Moncloa
Social Dinner**

Friday 01 June 2018

Laboratory Investigations

(Chair: Zoltan Sternovsky)

09:30 - 09:45 **Coupled Drag and Heating in Micrometeoroid Ablation**
Michael DeLuca

09:45 - 10:00 **Detection of impact ejecta generated by dust particle**
Yanwei Li

Past and Future Missions

(Chair: Jürgen Schmidt)

10:00 - 10:15 **Electrostatic Interaction between the Rosetta spacecraft and cometary grains**
Fabrice Cipriani

10:15 - 10:30 **Fragments from the Origin of the Solar System and our Interstellar Locale (FOSSIL) mission proposal**
Mihaly Horányi

10:30 - 10:45 **A Cubesat mission for a dust instrument**
Gallego Julio

10:45 - 11:00 **Discussion**

11:00 - 11:30 **Coffee**

Past and Future Missions (continued)

(Chair: Ralf Srama)

11:30 - 11:45 **Dust Sensor with Large Sensitive Area developed for Martian Dust Ring Discovery**
Masanori Kobayashi

11:45 - 12:00 **Detecting dust particles in space using antenna instruments**
Zoltan Sternovsky

12:00 - 12:15 **Electric field instruments as dust detectors challenges and perspectives**
Jakub Vaverka

12:15 - 12:30 **The Surface Dust Analyzer (SUDA) on Europa Clipper**
Sascha Kempf

12:30 - 12:45 **The Dusty Components of the Science Roadmap for Asteroid Mining**
Amara Graps

12:45 - 13:00 **Discussion**

13:00 - 13:15 **Farewell, End of meeting**

13:30 - 14:30 **Lunch**

Splinter on Destiny⁺ DDA

(Chairs: Ralf Srama, Masanori Kobayashi, Harald Krüger)

14:30 - 14:45 **DDA Science Logistics**
Masanori Kobayashi

14:45 - 15:00 **On the calibration of Destiny⁺ DDA Lessons learnt from Cassini CDA**
Nozair A. Khawaja

15:00 - 15:15 **Mineral calibration of Destiny⁺ DDA**
Frank Postberg

15:15 - 15:30 **Phaethon Fly-by geometry and dust modelling**
Jamey Szalay

15:30 - 16:30 **Discussion**

17:00 **Bus to Moncloa**