

Impacts in Planetary Systems Programme 11th May

Lund, 15th – 17th May 2017

Lundmarksalen, Lund Observatory

Monday 15th May

Morning chair: Anders Johansen

- 0830 – 0900 Registration
0900 – 0905 Alexander Mustill (Lund Astro) *Short introduction and welcome to meeting*
0905 – 0910 Melvyn B. Davies (Lund Astro) *Impacts in Lund*

Session 1: The Solar System

Invited speakers:

- 0910 – 0945 Alessandro Morbidelli (Nice) *The Nice model and dynamics of the Late Heavy Bombardment*
0945 – 1020 Christian Koeberl (Vienna) *The terrestrial impact record*

- 1020 – 1100 Coffee/Tea Break

Contributing speakers:

- 1100 – 1120 Samuele Boschi (Lund Astrogeobio) *Late Eocene ^3He and Ir anomalies associated with ordinary chondritic spinels*
1120 – 1140 Gavin Kenny (NRM Stockholm) *Dating impacts with shock metamorphosed zircon*
1140 – 1200 Ellinor Martin (Lund Astrogeobio) *Meteorite flux in the Late Cretaceous*
1200 – 1330 Lunch at Ideon (see blue “1” on map)

Afternoon chair: Ross Church

Invited speakers:

- 1330 – 1405 Bill Bottke (SWRI Boulder) *The timing of the Moon-forming impact*
1405 – 1440 David Nesvorný (SWRI Boulder) *The Evolution of the Asteroid Belt*

Contributing speakers:

- 1440 – 1505 Birger Schmitz (Lund Astrogeobio) *The history of the asteroid belt as reconstructed from Earth’s sedimentary record*
1505 – 1545 Coffee/Tea break
1545 – 1605 Simona Pirani (Lund Astro) *The evolution of the asteroid belt in the pebble accretion scenario*
1605 – 1625 Diego Turrini (INAF-IAPS) *Vesta knows best: constraining the formation and migration of Jupiter with the Dawn mission and the HED meteorites*
1625 – 1645 Anders Johansen (Lund Astro) *On the birth size distribution of planetesimals*
1645 – 1705 Alice Chau (UZH Zürich) *On the origin of Mercury*
1705 – 1725 Christoph Mordasini (Bern) *Impacts into (proto)planetary atmospheres – predictions for Jupiter’s core mass*
1800 – later *An evening with champagne and hydrofluoric acid: A tour of the Lund Astrogeobiology Lab with Birger Schmitz*

Tuesday 16th May

Morning chair: Bertram Bitsch

0900 – 0920 Christian Reinhardt (UZH Zürich) *A preliminary study of giant impacts on Uranus and Neptune*

Session 2: Debris Discs

Invited speaker:

0920 – 0955 Mark Wyatt (Cambridge) *Debris discs, exo-asteroids and exo-comets*

Contributing speakers:

0955 – 1015 Mark Booth (Jena) *Observing the Closest Debris Disc with ALMA*

1015 – 1100 Coffee/Tea Break

1100 – 1120 Torsten Loehne (Jena) *Collisions and drag in debris discs with eccentric parent belts*

1120 – 1140 Isabel Rebolledo (UAM) *Exocomets in Main-Sequence Stars*

1140 – 1200 Fabian Geiler (Jena) *Does warm debris dust stem from asteroid belts?*

1200 – 1345 Lunch at Ideon (see blue “1” on map)

Afternoon chair: Noemi Schaffer

Invited speaker:

1345 – 1420 Erika Nesvold (Carnegie DTM) *Collisional and n-body modelling of debris discs*

Contributing speakers:

1420 – 1440 Philippe Thebault (Paris) *Prospects for detecting biomarkers in exoplanetary impact ejecta*

1440 – 1500 Dimitri Veras (Warwick) *Planetary debris impacting white dwarfs*

1500 – 1540 Coffee/tea break

Session 3: Planet Formation and Composition

Invited speakers:

1540 – 1615 Eric Gaidos (Hawai‘i) *How Kepler’s view of the planetary mass–radius diagram informs about the late giant-impact stages of planet formation*

1615 – 1650 Sean Raymond (Bordeaux) *Global models for the origin of the inner Solar System and super-Earths*

Contributing speakers:

1650 – 1710 Alexander Mustill (Lund Astro) *Modelling the extreme collisional environment of transiting planets*

1710 – 1730 Nader Haghighipour (Hawai‘i) *Toward a More Realistic Treatment of Collisions in Simulations of Terrestrial Planet Formation*

1930 – later Conference dinner at Elite Hotel Ideon

Wednesday 17th May

Morning chair: Alexander Mustill

Invited speakers:

- 0900 – 0935 Phil Armitage (CU Boulder) *Planet formation in protoplanetary discs*
0935 – 1010 Caroline Dorn (Bern) *Planetary structures and compositions*

Contributing speakers:

- 1010 – 1030 Bertram Bitsch (Lund Astro) *The interplay between planet growth and migration*
- 1030 – 1115 Coffee/tea break
- 1115 – 1135 Yann Alibert (Bern) *On the growth of planetary embryos formed in core-accretion models: pebbles versus planetesimals*
- 1135 – 1155 Mark Fletcher (Leicester) *An implicit integration scheme for dust grains in PHANTOM*
- 1155 – 1215 Chao-Chin Yang (Lund Astro) *Planetesimal formation in a turbulent protoplanetary disk*
- 1215 – 1235 Sergei Nayakshin (Leicester) *3D simulations of pebble accretion onto and inside massive gas clumps*

Poster contributions

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| CHEOPS Consortium | <i>CHEOPS: CHaracterising ExOPlanet Satellite</i> |
| CHEOPS Consortium | <i>Observing with CHEOPS</i> |
| Mattia Galiazzo (Vienna) | <i>Possible impacts with Centaurs</i> |
| Ayyub Guliyev (Shamakhy) | <i>About real evidence of impact processes on comets</i> |
| Giorgi Kokaia (Lund Astro) | <i>Stellar Encounters with Giant Molecular Clouds</i> |
| Ximena Ramos (Copenhagen/Córdoba) | <i>Post-escape dynamical evolution of Jupiter Trojans</i> |
| Alexey Rosaev (Yaroslavl) | <i>Evolution of ejection velocity in very young asteroid families</i> |
| Andreas Schreiber (MPIA Heidelberg) | <i>All Planetesimals are born equal – Why the size distribution of Asteroids and Kuiper Belt objects is so similar</i> |
| Jan Sende (Jena) | <i>Influence of secular planetary perturbations on collisionally evolved debris disk</i> |
| Barry Welsh (UC Berkeley) | <i>Newly discovered exocomets</i> |