MARIE-LUISE STEINMEYER

https://steinmeyer-ml.github.io

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EDUCATION

Ph.D. in Planetary Science, GLOBE institute, University of Copenhagen, Denmark since 10/20

Topic: The role of envelopes during pebble accretion

Supervisors: Prof. Dr. Anders Johansen

M.Sc. in Physics, Ruprecht Karl University, Heidelberg, Germany

10/18 - 09/20

Final grade: 1.3 - very good

Master's Thesis: Formation of planetesimals by gravitational collapse using the PENCIL-Code

Supervisors: Prof. Dr. Hubert Klahr, Prof. Dr. Anders Johansen

Thesis Grade: 1.3 - very good

B.Sc. in Physics, Ruprecht Karl University, Heidelberg, Germany

10/14 - 09/18

Final grade: 1.3 - very good Additional courses on geoscience

Bachelor's Thesis: The Impact of Temperature Evolution on Planetesimal Formation

Supervisor: Prof. Dr. Hubert Klahr Thesis Grade: 1.0 - very good

RESEARCH EXPERIENCE

Research Internship, Lund Observatory, Lund 09/19 - 01/20

Studying gravitational collapse of dust clouds using the Pencil Code

Supervisor: Prof. Dr. Anders Johansen

Student Research Assistant, Max Planck Institute for Astronomy, Heidelberg 03/18 - 03/19

Documentation and evaluation of the dust evolution model TwoPoPPY

Supervisor: Prof. Dr. Hubert Klahr

Projektpraktikum (Project Internship), Max Planck Institute for Astronomy, Heidelberg 04/17 - 12/17

Planetesimal formation around the ice line

Supervisor: Prof. Dr. Hubert Klahr

PUBLICATIONS

Steinmeyer, M.-L., Woitke, P., Johansen, A., 2023, *Sublimation of refractory minerals in the gas envelopes of accreting rocky planets*, Astronomy and Astrophysics 677, doi:10.1051/0004-6361/202245636

PRESENTATIONS

ExOresund, Copenhagen, Denmark	10/23
Invited Talk: Pebble sublimation and its (compositional) consequences	
Annual Danish Astronomy Meeting, Fredericia, Denmark	06/23
Contributed Talk: Sublimation of refractory minerals in the gas envelopes of accreting rocky planets	
CELS start-up meeting, Copenhagen, Denmark	09/21
Contributed Talk: Primordial atmosphere of a protoplanet during pebble accretion	
Ringberg Workshop: Pebbles, Planetesimals and Protoplanets, Schloss Rinberg, Germany	03/20
Contributed Talk: Gravitational Collapse of Dust Filaments	
http://www.mpia.de/homes/klahr/PPP2020.html	

POSTERS

Sublimation of refractory minerals in the gas envelopes of accreting rocky planets	04/23
at: Protostars & Protoplanets VII	Kyoto, Japan
The role of envelopes of rocky planets during pebble accretion	07/22
at: Rocky Worlds II	Oxford, UK
The role of envelopes of rocky planets during pebble accretion	05/22
at: Exoplanets IV	Las Vegas, USA
Evolution and Collapse of Particle Filaments	11/20
at: Planetesimal Formation meeting	virtual
https://michiellambrechts.bitbucket.io/pfmeet.html	

ROLES OF RESPONSIBILITIES & OUTREACH

Astronomy on Tap, Copenhagen, Denmark	09/23
Speaker: The where and how of planet formation	
Astronomy on Tap, Copenhagen, Denmark	since 01/22
Volunteer	·
GLOBE Diversity Allies Programme	
Steering Committee Core Member	since 01/21
Interdisciplinary Workshop on Star and Planet Formation	,
Co-organiser of journal club	09/21 - 06/22

SKILLS

Computer Skills

Word processing with Microsoft Office and ${\rm LATEX}$

Coding with Python (advanced) and Fortran (beginner)

Experience using the two-population dust evolution model TwoPopPy, the high-order finite-difference code for compressible (magneto-)hydrodynamics code Pencil, and the DISPATCH code framework

Languages

German (native Speaker), English (fluent), French (conversational), Danish (basic words and phrases)

REFERENCES

Prof. Dr. Anders Johansen Globe Institute, Copenhagen

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Dr. Peter Woitke Institut für Weltraumforschung, Graz

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