

Tim Lichtenberg

Curriculum Vitae

Assistant Professor | Kapteyn Astronomical Institute | University of Groningen

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*I study the physical and chemical processes that drive the growth and long-term evolution of rocky planets and exoplanets, from formation through billions of years of geodynamic and climate evolution. My research traces how radioactive heating and disk chemistry set the initial volatile budgets, how magma ocean epochs forge the first atmospheres, and how mantle dynamics and volatile cycling shape planetary environments over geological time. By bridging geochemistry, planetary physics, and exoplanet observations, my *research group* works to understand the conditions for the origins of life and its cosmic prevalence.*

Research Positions

Tenure Track Assistant Professor & Branco Weiss Fellow (University of Groningen, NL)	10/2022–
Simons Collaboration on the Origins of Life Postdoctoral Fellow (University of Oxford, UK)	10/19–09/22
Swiss National Science Foundation Early.Postdoc Mobility Fellow (University of Oxford, UK)	08/18–09/19

Education

Dr. sc. ETH Zurich (Departments of Physics & Earth Sciences, ETH Zurich, Switzerland)	09/14–07/18
Thesis: Thermal Evolution of Forming Planets: Isotope Enrichment, Differentiation & Volatile Retention	
Master of Science Physics (Georg-August-Universität Göttingen, Germany)	09/12–08/14
Thesis: Modeling gravitational instabilities in compact and massive protoplanetary disks with adaptive mesh refinement techniques (grade: 1.0)	
Semester abroad (Peking University, People's Republic of China)	09/12–01/13
Studies of Chinese language and culture	
Bachelor of Science Physics (Georg-August-Universität Göttingen, Germany)	09/09–08/12
Thesis: Constraining Exoplanet Characteristics with Asteroseismology (grade: 1.0)	
Abitur 08, Wilhelmsgymnasium Kassel; military service 08–09, Schwarzenborn/Germany	–09

Honours & Awards

Europlanet Early-Career Medal, Europlanet Society	09/25
Planetary and Solar System Sciences Division Outstanding Early Career Scientist Award, European Geosciences Union (EGU)	04/23
Winton Award for Early Achievement in Geophysics, Royal Astronomical Society	01/22
Doctoral Thesis Award 2019, German Astronomical Society	09/19
PhD Prize for Planetary Systems and Astrobiology 2018, International Astronomical Union	06/19
European Astrobiology Network Association, Horneck-Brack Presentation Award, 2 nd prize	09/18
Master's diploma awarded 'with distinction', Georg-August-Universität Göttingen	08/14
'Dr. Berliner - Dr. Ungewitter' award for M.Sc. thesis, Georg-August-Universität Göttingen	08/14

Grants & Fellowships

<i>17 grants and fellowships in total, incl. 9 as PI (>€2.5M), 4 as Co-I</i>	
Conference support grants for Rocky Worlds IV in 01/26, Dutch Research Council (NWO), SRON, Netherlands Platform for Planetary Science, Leids Kerkhoven-Bosscha Fonds, PI	2025
AETHER Collaboration , Sloan Foundation, Co-I	07/25
European Research Council's (ERC) Starting Grant MagmaWorlds (€1.5M), PI	09/25
Dutch National Science Organisation (NWO) Consortium Grant (€329'065 out of €6.7M in total, <i>PRELIFE - Pathways, Reactions, and Environments leading to LIFE</i>), work package leader, Co-I	11/24
NOVA Consortium Grant (LIFE: Mid-infrared detection of biosignatures in the atmospheres of terrestrial exoplanets), PI: van der Tak (fte + cash € 249'000), Co-I	07/24

Open eScience Early Career Project PROTEUS (€134'000, <i>An Adaptive Numerical Framework to Simulate Lava Exoplanets</i>), Netherlands eScience Center, PI	12/23
Workshop grant for Rocky Worlds Discussions (\$2'000), Meteoritical Society	02/23
Faculty Research Grant, Faculty of Science and Engineering (€150'000), University of Groningen, PI	12/22
Research Fellowship of the Branco Weiss Foundation (CHF 500'000, <i>Molten Exoplanets as a Window into the Earliest Earth</i>), PI	08/22
A-rated ERC Starting Grant Proposal (reserve list), European Research Council	06/22
Conference support grants for Rocky Worlds II in 01/22 (£8'000 + \$5'000), Royal Astronomical Society, The Meteoritical Society, Kavli Institute for Cosmology, PI	05/21
Non-stipendiary Junior Research Fellowship, St Cross College, University of Oxford, PI	06/19
Simons Collaboration on the Origins of Life Postdoctoral Fellowship (\$276'000, <i>Geodynamic Regimes during Planetogenesis</i>), Simons Foundation, PI	12/18
Early Postdoc.Mobility fellowship (CHF 77'650, <i>Linking Interior-Atmosphere Regimes to Planetary Accretion</i>), Swiss National Science Foundation, PI	12/17
Conference support grant for Water during planet formation and evolution in 02/18 (CHF 10'000), University of Zurich Graduate Campus, Co-I	04/17
MERAC Funding and Travel Award (CHF 5'000), Swiss Society for Astrophysics & Astronomy, PI	10/16

Publications

Research-ID links: [ORCID](#) • [Google Scholar](#) • [ADS](#) • [SciX](#) • [Scopus](#) • [arXiv](#)

65 articles in total, incl. 15 first-author, 1 single-author, 15 co-/supervised student papers*, 3 mentored postdoc papers†
As first author 2x *Science*, 1x *Nature Astronomy*, 3x *ApJL*, 1x *E&PSL*

Preprints & Submitted Journal Articles

*Calder R, O Shorttle, H Nicholls, **T Lichtenberg**, CM Guimond. [Most Rocky Sub-Neptunes are Molten: Mapping the Solidification Shoreline for Gas Dwarf Exoplanets](#).

T Lichtenberg, L Schaefer, J Krissansen-Totton, Y Miguel, DE Sergeev, P Baumeister, J Cmiel, LJ Janssen, TG Nguyen, Y Miyazaki, H Nicholls, A Papesch, H Pelissard, B Peng, J Perez, E Postolec, M Sastre et al. [Coupled atmoSPHERE Interior modeL Intercomparison \(CHILI\) Protocol Version 1.0: A CUISINES Intercomparison Project of Magma Ocean Models](#).

*van Dijk MR, *H Nicholls, **T Lichtenberg**. [Onset of habitable conditions on the Hadean Earth set by feedback between tides and greenhouse forcing](#).

Refereed Research Journal Articles

*Nicholls H, **T Lichtenberg**, RD Chatterjee, CM Guimond, *E Postolec, RT Pierrehumbert. [Volatile-rich evolution of molten super-Earth L 98-59 d](#). *Nature Astronomy* (2026).

†Kimura T, **T Lichtenberg**. [Water enrichment of forming sub-Neptune envelopes limited by oxygen exhaustion](#). *The Astrophysical Journal*, in press (2026).

Meier TG, CM Guimond, RT Pierrehumbert, J Birkby, RD Chatterjee, CE Fisher, GJ Golabek, M Hammond, TD Komacek, **T Lichtenberg**, A McGinty, E Meier Valdés, H Nicholls, LT Parker, RJ Spaargaren, PJ Tackley. [Mantle convection and nightside volcanism on lava world K2-141 b](#). *Monthly Notices of the Royal Astronomical Society*, in press (2026).

Nixon MC, S Sander Somers, AB Savel, J Ih, EMR Kempton, ED Young, HE Schlichting, **T Lichtenberg**, L Welbanks, W Misener, AAA Piette, NF Wogan. [Magma ocean interactions can explain JWST observations of the sub-Neptune TOI-270 d](#). *The Astrophysical Journal* 995, 95 (2025).

Teske JK, NL Wallack, AAA Piette, L Dang, **T Lichtenberg**, M Plotnykov, RT Pierrehumbert, E Postolec, et al. [A Thick Volatile Atmosphere on the Ultra-Hot Super-Earth TOI-561 b](#). *The Astrophysical Journal Letters* 995, L39 (2025).

*Nicholls H, CM Guimond, HCFC Hay, RD Chatterjee, **T Lichtenberg**, RT Pierrehumbert. [Self-limited tidal heating and prolonged magma oceans in the L 98-59 system](#). *Monthly Notices of the Royal Astronomical Society* 541, 2566-2584 (2025).

Apai D., R. Barnes, M.M. Murphy, **T. Lichtenberg**, et al. [A Terminology and Quantitative Framework for Assessing the Habitability of Solar System and Extraterrestrial Worlds](#). *The Planetary Science Journal* 6, 165 (2025).

*Boer ID, *H Nicholls, **T. Lichtenberg**. [Absence of a Runaway Greenhouse Limit on Lava Planets](#). *The Astrophysical Journal* 987, 172 (2025).

Schlecker M, D Apai, A Affholder, S Ranjan, R Ferrière, KK Hardegree-Ullman, **T. Lichtenberg**, S Mazevet. [Bioverse: Potentially Observable Exoplanet Biosignature Patterns Under the UV Threshold Hypothesis for the Origin of Life](#). *The Astrophysical Journal* 987, 24 (2025).

Farhat M, P Auclair-Desrotour, G Boué, **T. Lichtenberg**, J Laskar. [Tides on Lava Worlds: Application to Close-in Exoplanets and the Early Earth-Moon System](#). *The Astrophysical Journal* 979, 133 (2025).

Hammond M, CM Guimond, **T. Lichtenberg** et al. [Reliable Detections of Atmospheres on Rocky Exoplanets with](#)

Photometric JWST Phase Curves. *The Astrophysical Journal Letters* 978, L40 (2025).

*Nicholls H, RT Pierrehumbert, **T. Lichtenberg** et al. Convective shutdown in the atmospheres of lava worlds. *Monthly Notices of the Royal Astronomical Society* 536, 2957-2971 (2025).

*Nicholls H, **T. Lichtenberg**, DJ Bower, RT Pierrehumbert. Magma ocean evolution at arbitrary redox state. *Journal of Geophysical Research: Planets* 129, 2024JE008576 (2024).

*Cesario L, **T. Lichtenberg** et al. Large Interferometer For Exoplanets (LIFE). XIV. Finding terrestrial protoplanets in the galactic neighborhood. *Astronomy & Astrophysics* 692, A172 (2024).

Eatson J. W., RJ Parker, **T. Lichtenberg**. Towards a unified injection model of short-lived radioisotopes in N-body simulations of star-forming regions. *The Astrophysical Journal* 977, 13 (2024).

†Meier T. G., D.J. Bower, **T. Lichtenberg**, M. Hammond, P.J. Tackley, R.T. Pierrehumbert, et al. Geodynamics of super-Earth GJ 486b. *Journal of Geophysical Research: Planets* 129, e2024JE008491 (2024).

†Eatson J. W., **T. Lichtenberg**, R. J. Parker, T. V. Gerya. Devolatilization of extrasolar planetesimals by ^{60}Fe and ^{26}Al heating. *Monthly Notices of the Royal Astronomical Society* 528, 6619-6630 (2024).

Shorttle O., S. Jordan, H. Nicholls, **T. Lichtenberg**, D. J. Bower. Distinguishing oceans of water from magma on mini-Neptune K2-18b. *The Astrophysical Journal Letters* 962, L8 (2024).

Schlecker S., D. Apai, **T. Lichtenberg**, G. Bergsten, A. Salvador, K. K. Hardegree-Ullman. Bioverse: The Habitable Zone Inner Edge Discontinuity as an Imprint of Runaway Greenhouse Climates on Exoplanet Demographics. *The Planetary Science Journal* 5, 3 (2024).

Patel M., C. K. M. Polius, M. Ridsdill-Smith, **T. Lichtenberg**, R. Parker. Photoevaporation versus enrichment in the cradle of the Sun. *Monthly Notices of the Royal Astronomical Society* 525, 2399-2410 (2023).

*Meier T. G., D. J. Bower, **T. Lichtenberg**, M. Hammond, P. J. Tackley. Interior dynamics of super-Earth 55 Cancri e. *Astronomy & Astrophysics* (2023).

Piette A. A. A., P. Gao, K. Brugman, A. Shahar, **T. Lichtenberg**, F. Miozzi, P. Driscoll. Rocky world? Observability of low-density lava world atmospheres. *The Astrophysical Journal* 954, 29 (2023).

Parker R. J., **T. Lichtenberg**, M. Patel, C. K. M. Polius, M. Ridsdill-Smith. Short-lived radioisotope enrichment in star-forming regions from stellar winds and supernovae. *Monthly Notices of the Royal Astronomical Society* 521, 4838-4851 (2023).

Janson M., J. Patel, S. C. Ringqvist, C. Lu, I. Rebollido, **T. Lichtenberg**, A. Brandeker, D. Angerhausen, L. Noack. Imaging of exocomets with infrared interferometry. *Astronomy & Astrophysics* 671, A114 (2023).

Stammler S. M., **T. Lichtenberg**, J. Drażkowska, T. Birnstiel. Leaky dust traps: How fragmentation impacts dust filtering by planets. *Astronomy & Astrophysics Letters* 670, L5 (2023).

Bonsor A., **T. Lichtenberg**, J. Drażkowska, A. M. Buchan. Rapid formation of exoplanetesimals revealed by white dwarfs. *Nature Astronomy* 7, 39-48 (2023).

*Graham R. J., **T. Lichtenberg**, R. T. Pierrehumbert. CO₂ ocean bistability on terrestrial exoplanets. *Journal of Geophysical Research: Planets* 127, 2022JE007456 (2022).

Lichtenberg T., M. S. Clement. Reduced late bombardment on rocky exoplanets around M-dwarfs. *The Astrophysical Journal Letters* 938, L3 (2022).

Curry A., A. Bonsor, **T. Lichtenberg**, O. Shorttle. Prevalence of short-lived radioactive isotopes across exoplanetary systems inferred from polluted white dwarfs. *Monthly Notices of the Royal Astronomical Society* 515, 395-406 (2022).

Dannert F. et al. (incl. **T. Lichtenberg**) Large Interferometer For Exoplanets (LIFE): II. Signal simulation, signal extraction and fundamental exoplanet parameters from single epoch observations. *Astronomy & Astrophysics* 664, A22 (2022).

Quanz S. P. et al. (incl. **T. Lichtenberg**) Large Interferometer For Exoplanets (LIFE): I. Improved exoplanet detection yield estimates for a large mid-infrared space-interferometer mission. *Astronomy & Astrophysics* 664, A21 (2022).

Jin Z., M. Bose, **T. Lichtenberg**, G. D. Mulders. New evidence for wet accretion of inner solar system planetesimals from meteorites Chelyabinsk and Benenitra. *The Planetary Science Journal*, 2, 244 (2021).

Tsai S.-M., H. Innes, **T. Lichtenberg**, J. Taylor, M. Malik, K. Chubb, R. T. Pierrehumbert. Inferring Shallow Surfaces on Sub-Neptune Exoplanets with JWST. *The Astrophysical Journal Letters* 922, L27 (2021).

Dorn C., **T. Lichtenberg**. Hidden water in magma ocean exoplanets. *The Astrophysical Journal Letters* 922, L4 (2021). (summary video)

*Graham R. J., **T. Lichtenberg**, R. Boukrouche*, R. T. Pierrehumbert. A multispecies pseudoadiabat for simulating condensable-rich exoplanet atmospheres. *The Planetary Science Journal* 2, 207 (2021). (summary video)

*Boukrouche R., **T. Lichtenberg**, R. T. Pierrehumbert. Beyond runaway: initiation of the post-runaway greenhouse state on rocky exoplanets. *The Astrophysical Journal* 919, 130 (2021). (summary video)

Lichtenberg T. Redox hysteresis of super-Earth exoplanets from magma ocean circulation. *The Astrophysical Journal Letters* 914, L4 (2021). (summary blog, summary video)

Lichtenberg T., S. Krijt. System-level fractionation of carbon from disk and planetesimal processing. *The Astrophysical Journal Letters* 913, L20 (2021). (summary blog, summary video)

*Meier T. G., D. J. Bower, **T. Lichtenberg**, P. J. Tackley, B.-O. Demory. Hemispheric tectonics on super-Earth LHS 3844b.

The Astrophysical Journal Letters 908, L48 (2021). ([summary video](#))

Lichtenberg T., D. J. Bower, M. Hammond, R. Boukrouche*, P. Sanan, S.-M. Tsai, R. T. Pierrehumbert. [Vertically resolved magma ocean-protoatmosphere evolution: H₂, H₂O, CO₂, CH₄, CO, O₂, and N₂ as primary absorbers.](#) *Journal of Geophysical Research: Planets* 126, e2020JE006711 (2021). ([summary blog](#), [summary video](#))

Lichtenberg T., J. Drażkowska, M. Schönbachler, G. J. Golabek, T. O. Hands. [Bifurcation of planetary building blocks during Solar System formation.](#) *Science* 371, 365–370 (2021). ([summary blog](#), [summary video](#))

Lichtenberg T., G. J. Golabek, R. Burn, M. R. Meyer, Y. Alibert, T. V. Gerya, C. Mordasini. [A water budget dichotomy of rocky protoplanets from ²⁶Al heating.](#) *Nature Astronomy* 3, 307–313 (2019). ([summary blog](#))

Lichtenberg T., T. Keller, R. F. Katz, G. J. Golabek, T. V. Gerya. [Magma ascent in planetesimals: control by grain size.](#) *Earth and Planetary Science Letters* 507, 154–165 (2019). ([blog post](#))

*Bonati I., **T. Lichtenberg**, D. J. Bower, M. Timpe, S. P. Quanz. [Direct imaging of molten protoplanets in nearby young stellar associations.](#) *Astronomy & Astrophysics* 621, A125 (2019). ([blog post](#))

Lichtenberg T., G. J. Golabek, C. P. Dullemond, M. Schönbachler, T. V. Gerya, M. R. Meyer. [Impact splash chondrule formation during planetesimal recycling.](#) *Icarus* 302, 27–43 (2018). ([blog post](#))

Hunt A. C., D. L. Cook, **T. Lichtenberg**, P. M. Reger, M. Ek, G. J. Golabek, M. Schönbachler. [Late metal-silicate separation on the IAB parent asteroid: Constraints from combined W and Pt isotopes and thermal modelling.](#) *Earth and Planetary Science Letters* 482, 490–500 (2018).

Parker R. J., **T. Lichtenberg**, S. P. Quanz. [Was Planet 9 captured in the Sun’s natal star-forming region?](#) *Monthly Notices of the Royal Astronomical Society: Letters* 472, L75–L79 (2017).

Lichtenberg T., R. J. Parker, M. R. Meyer. [Isotopic enrichment of forming planetary systems from supernova pollution.](#) *Monthly Notices of the Royal Astronomical Society* 462, 3979–3992 (2016). ([blog post](#))

Lichtenberg T., G. J. Golabek, T. V. Gerya, M. R. Meyer. [The effects of short-lived radionuclides and porosity on the early thermo-mechanical evolution of planetesimals.](#) *Icarus* 274, 350–365 (2016). ([blog post](#))

Lichtenberg T., D. R. G. Schleicher. [Modeling gravitational instabilities in self-gravitating protoplanetary disks with adaptive mesh refinement techniques.](#) *Astronomy & Astrophysics* 579, A32 (2015).

Refereed Review Articles

Lichtenberg T., O Shorttle, J Teske, EMR Kempton. [Constraining exoplanet interiors using observations of their atmospheres.](#) *Science* 390, eads3360 (2025).

Lichtenberg T., Y. Miguel. [Super-Earths and Earth-like Exoplanets.](#) *Treatise on Geochemistry*, 3rd edition, Vol. 7, 51-112 (2025).

Suer T.-A., C. Jackson, D. S. Grewal, C. Dalou, **T. Lichtenberg**. [The distribution of volatile elements during rocky planet formation.](#) *Frontiers in Earth Science* 11:1159412 (2023).

Lichtenberg T., L. K. Schaefer, M. Nakajima, R. Fischer. [Geophysical Evolution During Rocky Planet Formation.](#) *Protostars and Planets VII*, ASP Conference Series, Vol. 534, 907 (2023).

Perspectives and Collaboration Papers

Hu R. et al. (incl. **T. Lichtenberg**). [Identifying rocky planets and water worlds among sub-Neptune-sized exoplanets with the Habitable Worlds Observatory.](#) arXiv preprint (2025).

Rauer H. et al. (incl. **T. Lichtenberg**). [The PLATO mission.](#) *Experimental Astronomy* 59, 26 (2025).

Menti F. et al. (incl. **T. Lichtenberg**). [Database of Candidate Targets for the LIFE Mission.](#) *Research Notes of the AAS*, 8, 267 (2024).

TRAPPIST-1 JWST Community Initiative (incl. **T. Lichtenberg**) [A roadmap for the atmospheric characterization of terrestrial exoplanets with JWST.](#) *Nature Astronomy Perspective*, Vol. 8, 810-818 (2024).

Helled R. et al. (incl. **T. Lichtenberg**). [Ariel Planetary Interiors White Paper.](#) *Experimental Astronomy* 53, 323-356 (2021).

Tinetti G. et al. (incl. **T. Lichtenberg**). [Ariel: Enabling planetary science across light-years.](#) *ESA Ariel Definition Study Report* (2021).

Instrumentation & Methods

*Nicholls H., R.T. Pierrehumbert, **T. Lichtenberg**. [AGNI: A radiative-convective model for lava planet atmospheres.](#) *Journal of Open Source Software* 10, 7726 (2025).

Glauser A. M., S. P. Quanz, J. Hansen et al. (incl. **T. Lichtenberg**). [The Large Interferometer For Exoplanets \(LIFE\): a space mission for mid-infrared nulling interferometry.](#) *Proceedings of the SPIE* 13095, 130951D (2024).

White Papers (not in publication count)

Meadows V. et al. (incl. **T. Lichtenberg**) [Community Report from the Biosignatures Standards of Evidence Workshop.](#) Workshop Report (2022).

Khullar G. et al. (incl. **T. Lichtenberg**). [Astrobites as a Community-led Model for Education, Science Communication,](#)

and Accessibility in Astrophysics. Astro2020: NASA Decadal Survey on Astronomy and Astrophysics, *BAAS*, 51, 7, 230 (2019).

Quanz S. P. et al. (incl. **T. Lichtenberg**). Atmospheric characterization of terrestrial exoplanets in the mid-infrared: biosignatures, habitability & diversity. *ESA Voyage 2050 White Paper* (2019).

Line M. et al. (incl. **T. Lichtenberg**). The Importance of Thermal Emission Spectroscopy for Understanding Terrestrial Exoplanets. Astro2020: NASA Decadal Survey, *BAAS*, 51, 3, 271 (2019).

Lyra W. et al. (incl. **T. Lichtenberg**). Planet formation — The case for large efforts on the computational side. Astro2020: NASA Decadal Survey, *BAAS*, 51, 3, 271 (2019).

Conference and Institute Seminar Presentations

164 presentations in total, incl. 78 invited[‡]

Conferences and Workshops

International Conference on Exoplanets and Planet Formation, Shanghai, CN [‡]	Talk	12/25
Planetary Formation and Exoplanets in the ELT Era, Garching, DE	Talk	11/25
CHILL: Coupled atmoSPHERE Interior model Intercomparison, Leiden, NL	Talk	09/25
Frontiers in Nanoscience CeNS/CRC 392, Venice, IT [‡]	Talk	09/25
BUFFET-5, Bordeaux, FR [‡]	Talk	09/25
Europlanet Science Congress, Helsinki, FI [‡]	Talk	09/25
ESA Ariel Consortium Meeting, Leiden, NL	Talk	04/24
Future Role of FIR-Submm Space Observations, Leiden, NL [‡]	Talk	04/24
NOVA @ 25, The Hague, NL [‡]	Talk	12/24
Origins Federation Conference, Cambridge, UK [‡]	Talk	09/24
National Astronomers' Conference, NL [‡]	Talk	05/24
The Geoscience of Exoplanets: Going Beyond Habitability, International Space Science Institute, Bern, CH [‡]	Talk	04/24
Challenges in the field of exoplanets and the search for life, Leiden, NL [‡]	Talk	02/24
Ringberg Conference: Density Matters, Ringberg Castle, Kreuth, DE [‡]	Talk	02/24
Atmospheric and Interior connection in rocky EXOplanets and what we can learn from the Solar System, JPL Caltech, Pasadena, US (virtual) [‡]	Talk	08/23
Exoclimates VI, Exeter, UK	Talk	06/23
Molecular Origins of Life, Munich, DE (virtual) [‡]	Talk	06/23
Gordon Research Conference – Origins of Solar Systems, South Hadley, US [‡]	Talk	06/23
European Geosciences Union (EGU) General Assembly, Vienna, AUT [‡]	Talk	04/23
Protostars and Planets VII, Kyoto, JP [‡]	Talk	04/23
ESA ESLAB – Unrstanding Planets in the Solar System and Beyond, Noordwijk, NL	Talk	03/23
Fundamentals of the Universe Symposium, Groningen, NL	Talk	02/23
Life in the Universe, Physics of Living Systems, Sofia, BG [‡]	Talk	10/22
The Sun and Planetary Systems, Center for Space Science, NYUAD, UAE [‡]	Talk	10/22
10th Workshop on High Pressure, Planetary and Plasma Physics, Royal Observatory of Belgium, Brussels, BE	Talk	09/22
3rd Workshop on Giant Collisions and their Effects on the Thermochemical Evolution of Planets, DLR Berlin, DE	Talk	09/22
(Exo)Planet Diversity, Formation and Evolution, FU Berlin, DE	Talk	09/22
Latsis Symposium on The Origin and Prevalence of Life, ETH Zurich, CH	Talk	09/22
International Astronomical Union General Assembly, FM10: Synergy of Small Telescopes, and Large Surveys for Solar System and Exoplanetary Bodies Research, Busan, KR	Talk	08/22
International Astronomical Union General Assembly, Division F: Planetary Systems and Astrobiology, Busan, KR [‡]	Talk	08/22
Annual Meeting of the European Astronomical Society, Valencia, ESP [‡]	Talk	06/22
AGU21: Multidisciplinary Perspectives on Terrestrial Worlds (virtual)	Talk	12/21

AGU21: A Journey Into Planetary Interiors (virtual)	Talk	12/21
ESA PLATO Atmospheres workshop 2021 (virtual)	Talk	12/21
The Volatile Content of Planets that Form Early, Lorentz Center workshop, Leiden, NE (virtual) ‡	Talk	12/21
Ariel Interiors working group meeting 2021, Zurich, CH (virtual)	Talk	11/21
PLATO Mission Conference 2021, Berlin, DE (virtual)	Talk	10/21
Ringberg 2021: Formation of the Solar System, Kreuth, DE ‡	Talk	10/21
EPSC 2021, EXO3: Exoplanet observations, modelling and experiments, virtual, EU	Talk	09/21
EPSC 2021, TP3: Late accretion processes, virtual, EU ‡	Talk	09/21
EPSC 2021, EXO1: Zooming In On Planet Formation, EU (virtual)	Talk	09/21
Astrobiology Graduate Conference 2021, Tokyo, JP (virtual)	Talk	09/21
German Physical Society Meeting, session Exoplanets & Astrobiology, virtual, DE	Talk	09/21
Molecular Origins of Life 2021, Munich, DE (virtual)	Poster	08/21
Simons Collaboration on the Origins of Life Investigators Meeting, New York, US (virtual)	Talk	07/21
Goldschmidt 21, Chemical geodynamics throughout the Solar System, Lyon, FR (virtual) ‡	Talk	07/21
STScI SS21, Towards the Comprehensive Characterization of Exoplanets, STScI, US (virtual)	Talk	04/21
STScI Spring Symposium 2021, Science Writers' Workshop, STScI, US (virtual) ‡	Talk	04/21
Habitable Worlds 21, NASA NExSS, NExScI, US (virtual) ‡	Talk	02/21
Origins 2021, Origins Center, NL (virtual)	Talk	01/21
AGU: Comparative Planetology Throughout the Solar System, San Francisco, US (virtual)	Poster	12/20
Five years after HL Tau: a new era in planet formation, ESO, CL (virtual)	Talk	12/20
ESO Threats from the Surroundings, Garching, DE (virtual)	Poster	11/20
Exoplanet Demographics 2020, Pasadena, US (virtual)	Poster	11/20
Simons Collaboration on the Origins of Life Annual Symposium, New York, US (virtual)	Talk	11/20
EPSC 2020, EXO3: From Disks to Planets and their Atmospheres, virtual, EU	Talk	09/20
EPSC 2020, TP3: Coupled planet formation and evolution, EU (virtual)	Talk	09/20
Exoplanets III, Heidelberg, DE (virtual)	Poster	07/20
Molecular Origins of Life 2020, Munich, DE (virtual)	Poster	07/20
MIAPP virtual workshop: Final Orbit Assembly, Garching, DE (virtual)	Talk	06/20
What Makes a Planet Uninhabitable?, Chicago, US (virtual) ‡	Talk	05/20
Gordon Research Seminar & Conference – Origins of Life, Galveston, US	Talk	01/20
Rocky Worlds: from the Solar System to Exoplanets, Cambridge, UK	Talk	01/20
Exoplanet Vision 2050, Konkoly Observatory, Hun Academy of Sciences, Budapest, HUN ‡	Talk	11/19
RU Transition Disks meeting, Center for Advanced Studies, LMU Munich, Munich, DE	Talk	11/19
EPSC-DPS 2019, TP16: Collisions from small bodies to planetary scales, Geneva, CH	Talk	09/19
Annual Meeting of the German Astronomical Society 2019, Stuttgart, DE ‡	Talk	09/19
EPSC-DPS 2019, TP14: Coupled planet formation and evolution, Geneva, CH	Talk	09/19
EPSC-DPS 2019, EXO2: Exoplanet observations, modelling and experiments, Geneva, CH	Talk	09/19
Extreme Solar Systems IV, Reykjavík, IS	Poster	08/19
Exoclimates V, Oxford, UK	Poster	08/19
Gordon Research Conference – Origins of Solar Systems, South Hadley, USA	Poster	06/19
From Stars to Planets II, Gothenburg, SE	Talk	06/19
UK Exoplanet Community Meeting 2019, London, UK	Talk	04/19
Planet Formation and Evolution 2019, Rostock, DE	Talk	02/19
2nd Oxford Meeting on Planets, Oxford, UK	Talk	12/18
European Astrobiology Network Association 2018, Berlin, DE ‡	Talk	09/18
European Planetary Science Congress 2018, session EXO1, Berlin, DE	Poster	09/18
EPSC 2018, EXO2: Formation and Dynamical Evolution of Planetary Systems, Berlin, DE	Talk	09/18

EPSC 2018, SB4: Asteroids and parent bodies of meteorites, Berlin, DE	Talk	09/18
Exoplanets II, Cambridge, UK	Talk	07/18
UK Exoplanet Community Meeting, Oxford, UK	Talk	03/18
Water during planet formation and evolution, Zurich, CH	Poster	02/18
NCCR PlanetS General Assembly 2018, Grindelwald, CH	Poster	01/18
The Origins of Volatiles in Habitable Planets, Ann Arbor, US	Poster	10/17
Planet Formation and Evolution 2017, Jena, DE	Poster	09/17
Gordon Research Conference ‘Origins of Solar Systems’, South Hadley, USA	Poster	06/17
Gordon Research Seminar ‘Origins of Solar Systems’, South Hadley, USA	Talk	06/17
Accretion, Differentiation and Early Evolution of the Terrestrial Planets, Nice, FR	Talk	05/17
Chondrules and the Protoplanetary Disk, London, UK	Talk	02/17
Formation of the Solar System and the Origin of Life, Leiden, NL	Talk	02/17
German-Swiss Geodynamics Workshop, Lichtenfels, DE	Poster	09/16
New Directions in Planet Formation, Leiden, NL	Talk	07/16
Origin and Evolution of Plate Tectonics, Ascona, CH	Poster	07/16
Exoplanets I, Davos, CH	Poster	07/16
4 th Sant Cugat Forum on Astrophysics, Sant Cugat, ESP	Talk	04/16
Planet Formation and Evolution 2016, Duisburg-Essen, DE	Talk	03/16
The Delivery of Water to Proto-planets, Planets and Satellites, ISSI Bern, CH	Talk	01/16
National Centre for Competence in Research PlanetS General Assembly, Grindelwald, CH	Talk	01/16
Gordon Research Conference ‘Origins of Solar Systems’, South Hadley, USA	Poster	07/15
NCCR PlanetS General Assembly 2015, Anzère, CH	Poster	01/15
Planet Formation and Evolution, Kiel, DE	Poster	09/14
Annual workshop of the German NSF Graduiertenkolleg 1351, Salzgitter, DE	Talk	09/13

Colloquia and Seminar Talks

Globe Institute, Centre for Star and Planet Formation, Copenhagen, DK ‡	Talk	02/26
Department of Astrophysics, Radboud University, Nijmegen, NL ‡	Talk	03/25
Anton Pannekoek Institute for Astronomy, University of Amsterdam, Amsterdam, NL ‡	Talk	11/24
Max Planck Institute for Solar System Research, Göttingen, DE ‡	Talk	05/24
Graz-Vienna Exoplanet Scientist Meeting, Graz, AUT ‡	Talk	05/24
Austrian Academy of Sciences Space Research Institute, Graz, AUT ‡	Talk	05/24
Alien Earths Collaboration Annual All-Hands Meeting, Tucson, USA ‡	Talk	04/24
University of Groningen, Department of Physics, Groningen, NL ‡	Talk	02/24
SRON Netherlands Institute for Space Research, Leiden, NL ‡	Talk	10/23
Royal Astronomical Society Ordinary Meeting, London, UK ‡	Talk	10/23
Leiden University Observatory, Leiden, NL ‡	Talk	09/23
Harvard University, Department of Earth and Planetary Sciences, Cambridge, US ‡	Talk	06/23
ASTRON – Netherlands Institute for Radio Astronomy, Dwingeloo, NL ‡	Talk	02/23
Shanghai Astronomical Observatory, Chinese Academy of Sciences, Shanghai, CN ‡	Talk	11/22
California Institute of Technology, Division of Geological and Planetary Sciences, Yung Lunch Seminar, Pasadena, USA ‡	Talk	07/22
University of Vienna, Department of Astrophysics, Vienna, AUT ‡	Talk	06/22
AETHER Collaboration Seminar, Carnegie Earth and Planets Laboratory, Washington DC, USA ‡	Talk	06/22
Munich Institute for Astro-, Particle- and BioPhysics, Planet Formation: From Dust Coagulation to Final Orbit Assembly, Garching, DE ‡	Talk	06/22
University of Groningen, Kapteyn Astronomical Institute, Groningen, NL ‡	Talk	05/22
Free University of Berlin, Department of Earth Sciences, Berlin, DE ‡	Talk	04/22

Imperial College, Department of Earth Sciences, London, UK ‡	Talk	03/22
European Astrobiology Institute Seminar, Strasbourg, FR, (virtual) ‡	Talk	03/22
Washington University St. Louis, Physics Colloquium, St. Louis, US (virtual) ‡	Talk	03/22
University of Rochester, Earth and Environmental Sciences, Rochester, US (virtual) ‡	Talk	02/22
University of Arizona, Origins Seminar, Tucson, US (virtual) ‡	Talk	02/22
Purdue University, Earth, Atmospheric and Planetary Sciences, West Lafayette, US (virtual) ‡	Talk	02/22
Heidelberg Initiative for the Origins of Life Colloquium, Max Planck Institute for Astronomy, Heidelberg, DE ‡	Talk	11/21
St Andrews Centre for Exoplanet Science, St Andrews, UK (virtual) ‡	Talk	07/21
Dominion Radio Astrophysical Observatory (DRAO), Penticton, CA (virtual)	Talk	06/21
TRR-170/Planetology colloquium, Münster, DE (virtual) ‡	Talk	06/21
NExSS Quantitative Habitability science working group, Tucson, US (virtual) ‡	Talk	05/21
Université de Lorraine, Petrographic and Geochemical Research Center, Nancy, FR (virtual) ‡	Talk	03/21
University of Zurich, Theoretical Astrophysics & Computational Science, Zurich, CH (virtual) ‡	Talk	03/21
Lunar and Planetary Institute, USRA, Houston, US (virtual)	Talk	03/21
Max Planck Institute for Astronomy, Atmospheric Physics of Exoplanets, Heidelberg, DE (virtual) ‡	Talk	03/21
Carnegie Institution of Science, Earth & Planets Laboratory, Washington DC, US (virtual) ‡	Talk	02/21
University of Bern, Theoretical Astrophysics and Planetary Science, Bern, CH (virtual) ‡	Talk	02/21
University of Bristol, Isotope Geochemistry, Bristol, UK (virtual) ‡	Talk	02/21
University of Cambridge, Planetary Geochemistry, Cambridge, UK (virtual) ‡	Talk	02/21
São Paulo State University, Orbital Dynamics and Planetology, Sao Paulo, BR (virtual) ‡	Talk	10/20
NIT Rourkela, Department of Physics and Astronomy, Rourkela, IND (virtual) ‡	Talk	10/20
Berkeley CIPS / UCLA joint planetary science seminar, Berkeley, US (virtual) ‡	Talk	09/20
Universidad de Concepción, Departamento de Astronomía, Concepción, CL (virtual) ‡	Talk	06/20
University of Arizona, Steward Observatory, Tucson, US	Talk	01/20
ETH Zurich, Department of Earth Sciences, Zurich, CH ‡	Talk	11/19
Imperial College, Blackett Laboratory, London, UK	Talk	11/19
McMaster University, Origins Institute, Hamilton, CA	Talk	11/19
ETH Zurich, Institute for Particle Physics and Astrophysics, Zurich, CH	Talk	05/19
German Aerospace Center (DLR) Berlin, Berlin, DE ‡	Talk	04/19
University of Oxford, Department of Earth Sciences, Oxford, UK	Talk	02/19
University of Cambridge, Institute of Astronomy, Cambridge, UK ‡	Talk	05/18
ETH Zurich, Institute of Geochemistry and Petrology, Zurich, CH ‡	Talk	04/18
Stanford University, Department of Earth Sciences, Stanford, US	Talk	10/17
University of Sheffield, Department of Physics & Astronomy, Sheffield, UK	Talk	08/17
University of Oxford, Department of Earth Sciences, Oxford, UK	Talk	07/17
University of Bern, Center for Space and Habitability, CH ‡	Talk	06/17
Hungarian Academy of Sciences, Konkoly Observatory, Budapest, HUN ‡	Talk	03/17
University of Copenhagen, Centre for Star and Planet Formation, Copenhagen, DK ‡	Talk	02/17
Liverpool John Moores University, Astrophysics Research Institute, Liverpool, UK	Talk	07/16
University of Oxford, Department of Earth Sciences, Oxford, UK	Talk	06/16
ETH Zurich, Institute of Geophysics, Zurich, CH	Talk	12/15

Student Mentoring

34 supervised students in total, incl. 7 PhD, 9 MSc, 12 BSc theses, 6 projects/internships

PhD thesis “Prebiotic climate and ocean levels of the Hadean Earth”, Emeline Decocq, Kapteyn Institute	09/25–
PhD thesis “Interior-atmosphere evolution on low-mass exoplanets”, Imre Kisvárdai, Kapteyn Institute	09/25–

MSc thesis “Observability of super-Earth atmospheres with Ariel”, Lorenzo Cesario, Kapteyn Institute	09/25-
MSc thesis “Ocean formation on sub-Neptune exoplanets”, Ema Jungová, Kapteyn Institute	09/25-
MSc thesis “Photochemistry on hot rocky exoplanets”, Ioannis Panagiotou, Kapteyn Institute	09/25-
BSc thesis “Tidally supported Hadean Magma Oceans under Secondary Atmospheres: Implications for the Production of Life’s Building Blocks” & further research projects, Marijn van Dijk, Kapteyn Institute	04/25-
BSc thesis “Timescale of ocean formation and their composition on Earth-like exoplanets”, Anvel de Sainte Marie d’Agneaux, Kapteyn Institute	04/25-07/25
BSc thesis “Modelling the Interior Structure of Rocky Exoplanets with Zalmoxis”, Flavia Pascal, Kapteyn Institute	04/25-07/25
BSc thesis “The Cosmic Shoreline: Modelling Bare-rock Surfaces and Atmospheres on Rocky M-dwarf Exoplanets” & further research projects, Karen Stuitje, RUG Physics department	04/25-07/25
Internship & MSc thesis “UV flux of prebiotic atmospheres at varying redox conditions”, Bruna Fena (FU Berlin MSc student), Kapteyn Institute	04/25-
MSc thesis “Probing abiotic planetary oxygenation with LIFE”, Sanne Borgmann, Kapteyn Institute	01/25-
BSc Honours College research project “Exoplanet interior structure modelling”, Flavia Pascal, Kapteyn Institute	01/25-04/25
MSc thesis “Forging Planets: Exploring the magma-ocean geochemistry of Super-Earths and Sub-Neptunes”, Jorick Lania, Kapteyn Institute	10/24-07/25
BSc thesis “The under-dense region between super-Earths and sub-Neptunes”, Jessica Helmerhorst, Kapteyn Institute	04/24-07/24
BSc thesis “Rock-vapour species in lava exoplanet atmospheres”, Björn Koops, Kapteyn Institute	04/24-07/24
BSc thesis “Redox-dependency of the runaway greenhouse limit”, Iris Boer, Kapteyn Institute	04/24-07/24
BSc semester project “Characterising exoplanet surface composition with LIFE”, Flavia Pascal, Kapteyn Institute	11/23-06/24
MSc thesis “Magma oceanography of GJ 367b”, Lotte Bartels, Kapteyn Institute	10/23-06/24
PhD thesis “Evolution of magma ocean exoplanet atmospheres”, Emma Postolec, Kapteyn Institute	10/23-
PhD thesis “Evolution of magma ocean exoplanet interiors”, Mariana V. Sastre, Kapteyn Institute	09/23-
PhD thesis “What happened to rocky planets?”, Harrison Nicholls, Oxford Atmospheric Physics, co-supervisor	04/23-01/26
BSc thesis “Distinguishing surface features on atmosphere-less exoplanets”, Lucas Priolet, Kapteyn Institute	04/23-07/23
BSc thesis “The prevalence of steam in magma ocean atmospheres”, Boyd van der Plaat, Kapteyn Institute	04/23-07/23
BSc thesis “Detecting cooling protoplanets with direct imaging”, Lorenzo Cesario, Kapteyn Institute	04/23-07/23
BSc thesis “Spectral signatures of volcanic exoplanet atmospheres”, Marijn Smorenburg, Kapteyn Institute	04/23-07/23
MSc thesis “Hydrology of Planetesimals”, Beat Hubmann, Institute of Geophysics, ETH Zurich, co-supervision	02/22-10/22
Semester project “Investigating the surface composition of airless, terrestrial exoplanets with the Large Interferometer for Exoplanets”, Gustav Pap, ETH Zurich, co-supervision	02/21-06/21
PhD research projects “A multispecies pseudoadiabat for simulating condensable-rich exoplanet atmospheres”, Robert J. Graham, Oxford Atmospheric Physics, co-supervision	08/20-09/22
PhD research project “Beyond runaway: initiation of the post-runaway greenhouse state on rocky exoplanets”, Ryan Boukrouche, Oxford Atmospheric Physics, co-supervision	01/20-09/22
Pastoral support and mentoring for 16 Oxford M.Sc. and D.Phil. (Ph.D.) students from the natural sciences (Engineering, Computer Science, Medicine, Physics, Chemistry), St Cross College, University of Oxford	10/19-09/22
Semester project “Influence of silicate rheology on iron core formation”, Madeleine Müller, Institute of Geophysics, ETH Zurich, co-supervision	03/20-06/20
BSc thesis “Percolative core formation in terrestrial planetesimals and protoplanets”, Madeleine Müller, Institute of Geophysics, ETH Zurich, co-supervision	12/18-06/19
MSc thesis “Quantitative Predictions for the Observability of Protoplanetary Collisions”, Irene Bonati, Institute of Geophysics, ETH Zurich, co-supervision	12/16-09/17
Semester project “2D Numerical Modeling of Pebble Accretion Influence on Planetesimal Evolution”, Fabio Luchsinger, Institute of Geophysics, ETH Zurich, co-supervision	08/16-02/17

Lectures and Courses

16 courses in total, incl. 10 as lecturer, 6 as teaching/lab assistant

<i>Exoplanets</i> , MSc course, Kapteyn Institute, lecturer (~20 students)	02/26–04/26
<i>Planetary Systems</i> , BSc course, Kapteyn Institute, lecturer (~50 students)	09/25–11/25
<i>Exoplanets</i> , MSc course, Kapteyn Institute, lecturer (~20 students)	10/24–02/25
<i>Star and Planet Formation</i> , MSc course, Kapteyn Institute, co-lecturer (~30 students)	02/25–04/25
<i>Exoplanets</i> , MSc course, Kapteyn Institute, lecturer (~20 students)	10/23–02/24
<i>Hands-on Numerical Astrophysics School for Planet Formation Sciences</i> , summer school, DFG priority programme 1992 “Exoplanet Diversity”, Rauenberg, lecturer (~30 students)	08/23
<i>Star and Planet Formation</i> , MSc course, Kapteyn Institute, co-lecturer (~30 students)	02/23–04/23
<i>Life and Information</i> , BSc seminar, University of Groningen, guest lecturer (~30 students)	11/22
<i>Origin and role of volatiles in the early solar system and planets</i> , block course, University of Bayreuth, lecturer (~20 students)	01/20
<i>Planetary Physics and Chemistry & Geophysics II</i> , ETH Zurich, substitute lecturer (~50 students)	09/17–05/18
<i>Physics I</i> as minor subject, ETH Zurich, exercise/exam design (~100 students)	09/15–02/16
<i>Physics I+II</i> as minor subject, ETH Zurich, teaching assistant (~30 students)	02/14–02/15
<i>Scientific computing</i> , Göttingen University, teaching assistant (~20 students)	09/13–02/14
<i>Basic physics lab course</i> , Göttingen University, lab assistant (~10 students)	09/13–02/14
<i>Introduction to Astro- and Geophysics</i> , Göttingen University, teaching assistant (~20 students)	03/13–08/13
<i>Basic physics lab course</i> , Göttingen University, lab assistant (~10 students)	09/12–02/13

External/Co-Examination & Defence Committees

19 examinations in total, incl. 7 PhD, 2 MSc, 10 BSc

Aditya Arabhavi, “Unraveling the Planet-Forming Materials Around Young Stars with JWST”, PhD thesis, supervisor: Inga Kamp, University of Groningen, NL	09/25
Zalán Novák, “Rotational Excitation of Interstellar OCS: Non-LTE Line Analysis and Temperature-Density Diagnostics Using RADEX”, BSc thesis, supervisor: Floris van der Tak, University of Groningen, NL	07/25
Emma F. van der Vinne, “Atmospheric retrieval of Jupiter, observed as an exoplanet, using the TauREx code”, BSc thesis, supervisor: Quentin Changeat, University of Groningen, NL	07/25
Tristan Popken, “Accelerated chemistry for exoplanet atmospheres via grid interpolation”, BSc thesis, supervisor: Quentin Changeat, University of Groningen, NL	07/25
Fran Štimac, “Unreliable Pixel Correction in JWST Exoplanet Data: Identifying, classifying, and correcting for unreliable pixels on the NIRSpec detector”, BSc thesis, supervisor: Quentin Changeat, University of Groningen, NL	07/25
Jesse Reurink, “A Small Population Study Across the Radius Valley using JWST NIRSpec G395H”, MSc thesis, supervisor: Quentin Changeat, University of Groningen, NL	07/25
Mark Oosterloo, “Tracking CHNOS during the early stages of planet formation with a model-laboratory approach”, PhD thesis, supervisors: Inga Kamp, Wim van Westrenen, University of Groningen, NL	01/25
Francisco Ardévol Martínez, “Machine learning for exoplanet characterisation in the JWST era”, PhD thesis, supervisors: Inga Kamp, Paul I. Palmer, Michiel Min, University of Groningen, NL	10/24
Zara Siyal, “Comparison and characterisation of properties of exoplanets and their host stars”, BSc thesis, supervisors: Amina Helmi, Tom Callingham, University of Groningen, NL	07/24
Tycho Hebels, “The Effects of Dust Grain Surface Reactions on the HDO/H ₂ O Ice Ratio in Protoplanetary Disks”, BSc thesis, supervisor: Inga Kamp, University of Groningen, NL	07/24
Kevin de Man, “Radiation processing of grains in protoplanetary disks”, BSc thesis, supervisor: Inga Kamp, University of Groningen, NL	07/24
Ioannis Panagiotou, “Evolution of the pressure equilibrium and condensation in idealised simulations”, BSc thesis, supervisors: Filippo Fraternali, A. Dutta, University of Groningen, NL	07/24
Keavin Moore, “Coupled Models of Water on Terrestrial Planets Orbiting M-Dwarfs”, PhD thesis, supervisor: Nicolas B. Cowan, McGill University, CA	12/23

Roos H. Voorhoeve, “Enhancing and expanding the applicability of ReverseRADEX for accurate astrophysical insights”, BSc thesis, supervisor: Floris van der Tak, University of Groningen, NL	12/23
Bayron Armando Portilla Revelo, “Closing the gap between theory and observations of planet-forming disks with radiative transfer models”, PhD thesis, supervisors: Inga Kamp, Ewine van Dishoeck, University of Groningen, NL	12/23
Nynke Visser, “The influence of the ice-albedo feedback on the long term carbon cycle of Earth-like exoplanets”, MSc thesis, supervisors: Inga Kamp, Mark Oosterloo, Dennis Höning, University of Groningen, NL	08/23
Raymon P. Ferdinand, “Outgassing and Exoplanet Atmospheres: A study of the effects of outgassing on the temperature and composition of the secondary atmospheres of rocky exoplanets”, BSc thesis, supervisors: Floris van der Tak, Michiel Min, University of Groningen, NL	06/23
Yapeng Zhang, “Isotopes and the characterization of extrasolar planets”, PhD thesis, supervisors: Ignas Snellen, Laura Kreidberg, Leiden Observatory, NL	06/23
Mantas Zilinskas, “Lava Worlds: Characterising atmospheres of impossible nature”, PhD thesis, supervisors: Yamila Miguel, Ignas Snellen, Leiden Observatory, NL	05/23

Refereeing & Panel Service

AGU Advances, Astronomy & Astrophysics, Astrophysical Journal, Astrophysical Journal Letters, Earth and Planetary Science Letters, Elements, Icarus, Journal of Geophysical Research: Planets, Monthly Notices of the Royal Astronomical Society, Nature, Nature Astronomy, Nature Communications, Planetary Science Journal, Proceedings of the National Academy of Sciences, Publications of the Astronomical Society of Australia, Science, Science Advances

Belgian Research Foundation (FWO), Cambridge University College Fellowships, Dutch Research Council (NWO), European Research Council (ERC), NASA Emerging Worlds program, NASA Hubble Fellowship Program (NHFP), Natural Sciences and Engineering Research Council of Canada (NSERC), Swiss National Science Foundation (SNSF), UK Research and Innovation (UKRI), US National Science Foundation (NSF)

National & International Collaborations

JWST Cycle 4 GO Program <i>Surveying Hellish Worlds: Lava Planets as Time Capsules of Thermal Evolution</i> (100.5 hr, PI: Dang), Co-I	04/25–
Dutch National Science Foundation (NWO) Consortium PRELIFE – Pathways, Reactions, and Environments leading to LIFE, Co-I	11/24–
JWST Cycle 2 GO Program <i>Phase Curve Observations of TOI-561 b To Study Atmosphere-Interior Exchange</i> (44.3 hr, PI: Teske), Co-I	02/23–
ESA PLATO Consortium, member of Exoplanet Science WPs <i>Atmospheres of PLATO Terrestrial Planets</i> (WP116400) and <i>Climate/Atmospheres of PLATO Habitable Zone Planets</i> (WP116530); Core Science Team member since 2025	12/21–
Associate member of Carnegie-led research program <i>AETHER: Atmospheric Empirical, Theoretical, and Experimental Research</i>	09/21–
Associate member of NASA research program <i>Alien Earths: Searching for Habitable Worlds in Nearby Planetary Systems</i>	03/21–
Co-lead of the <i>Science Team</i> of the LIFE Collaboration	02/21–01/26
Member of the <i>Quantifying Habitability</i> working group of NASA’s <i>Nexus for Exoplanet System Science</i>	09/20–
ESA Ariel Consortium, member of the <i>Exoplanetary Interiors</i> working group	04/20–
Postdoctoral Fellow of the <i>Simons Collaboration on the Origins of Life</i> (SCOL project)	10/19–09/22
Member of the <i>Large Interferometer for Exoplanets</i> (LIFE) Collaboration	01/19–

Conference & Workshop Organisation

28 events in total, incl. 8 as main organiser	
Rocky Worlds Conference Series (main organiser)	Chair 10/22–
Lorentz Center Workshop <i>Characterizing Habitable Exoplanets With Interdisciplinary Expertise</i> , Leiden, NL	SOC 04/26
Rocky Worlds IV (main organiser), Groningen, NL	Chair 01/26
<i>Science and Technology for the Era of LIFE</i> , Barcelona, ES	SOC 11/25
Lorentz Center Workshop <i>Atmospheric and interior evolution of planetary magma oceans</i> (main organiser), Leiden, NL	Chair 10/25

<i>Exoclimes VII</i> , Montréal, CA	SOC	07/25
<i>Exoplanets V</i> , Leiden, NL	Convenor	06/24
<i>Rocky Worlds III</i> , ETH Zurich, CH	SOC	01/24
Annual LIFE Science Team Workshop, Berlin, DE	Co-Chair	09/23
Goldschmidt 2023, <i>Unraveling planetary interiors with extraterrestrial samples and space data</i> , Lyon, FR	Convenor	07/23
<i>Origins of Solar Systems</i> Gordon Research Seminar (main organiser), South Hadley, US	Co-Chair	06/23
<i>The (geo)chemistry of terrestrial planet formation</i> , Groningen, NL	SOC & LOC	03/23
<i>Rocky Worlds Discussions</i> , monthly virtual seminar series (main organiser)	SOC	10/22–09/24
<i>Rocky Worlds II</i> (main organiser), University of Oxford, UK	Chair	07/22
AGU 2021 session <i>Multidisciplinary perspectives on the formation and early evolution of terrestrial worlds</i> , New Orleans, US	Convenor	12/21
ESA PLATO Exoplanet Atmospheres Workshop, Berlin, DE	SOC	12/21
Lorentz Center Workshop <i>LIFE – Large Interferometer for Exoplanets</i> (main organiser), Leiden, NL	SOC	06/21
AGU 2020 session <i>Accretion and differentiation of rocky planets: perspectives from geophysics, geochemistry, & astronomy</i> , San Francisco, US	Convenor	12/20
<i>LIFE Workshop III</i> , Liège, BE	SOC	12/20
<i>Threats from the surroundings</i> , ESO, Garching, DE	SOC	11/20
<i>Exoplanets III</i> , Heidelberg, DE	Moderator	07/20
<i>LIFE – Large Interferometer for Exoplanets</i> (main organiser), virtual, ETH Zurich	SOC	05/20
<i>3rd Oxford Meeting on Planets</i> (main organiser), University of Oxford, UK	SOC	12/19
<i>Exoclimes V</i> , University of Oxford, UK	LOC	08/19
<i>2nd Oxford Meeting on Planets</i> (main organiser), University of Oxford, UK	Chair	12/18
<i>Water during planet formation and evolution</i> , University of Zurich, CH	SOC	02/18
<i>The Origins of Volatiles in Habitable Planets</i> , University of Michigan, US	LOC	10/17
<i>Water during planet formation and evolution</i> , PlanetS internal workshop, University of Zurich, CH	SOC	11/16

Advanced Teaching & Research Training Courses

Teaching, Education & Supervision

<i>Academic Leadership</i> , University of Groningen, NL		09/25
<i>University Teaching Qualification (UTQ)</i> , University of Groningen, NL		02/24
<i>Introduction for new PhD supervisors</i> , University of Groningen, NL		10/23
<i>Active Bystander Training</i> , Kapteyn Institute, NL		04/23
<i>The importance of the first PhD year</i> , University of Groningen, NL		03/23
<i>Coaching PhD students</i> , University of Groningen, NL		01/23
<i>Inclusive Leadership: The Power of Workplace Diversity</i> , University of Colorado, US (online)		06/21
<i>University Teaching</i> , University of Hong Kong, HK (online)		05/21
<i>Researcher Management and Leadership Training</i> , University of Colorado, US (online)		05/21
<i>Learning to Teach</i> , ETH Zurich, CH		12/15

Research Schools

Winter school <i>Chronology of the Formation of the Solar System VI</i> , Les Houches, FR		02/17
Winter school <i>Planetary Geodynamics</i> , TRR 170 Late Accretion onto Terrestrial Planets, Hohenhagen, DE		11/16
Winter school <i>From Protoplanetary Disks to Planet Formation</i> , 45 th Saas-Fee Advanced Course, Les Diablerets, CH		03/15
Summer school <i>ISSAC 2013: Star & Planet Formation</i> , UC Santa Cruz, US		08/13

Outreach & Public Engagement

50+ outreach activities, incl. 12 media interviews & press features, 5 public talks, 16 blog posts & videos, 20 peer-reviewed *Astrobit*es

Media Interviews & Press

Media interview, <i>Stormy planets and an unexpected atmosphere</i> , FSE Science Newsroom, University of Groningen	12/25
Media interviews for NASA, Scientific American, Space.com, phys.org, ScienceDaily, EarthSky, and others on TOI-561 b atmosphere detection	11–12/25
Interview, <i>Quickfire Questions with Tim Lichtenberg</i> , Europlanet Magazine	09/25
Media interview, <i>This Blazing Exoplanet Breaks All the Rules about Alien Atmospheres</i> , Scientific American	09/25
Media interview, <i>Exoplanet plate tectonics: A new frontier in the hunt for alien life</i> , New Scientist	12/24
Media interview, podcast <i>Die knifflige Suche nach außerirdischem Leben</i> , Deutschlandfunk	12/24
Media interview, <i>What is a presumed sign of life doing on a dead comet?</i> , Science News	04/24
Biographical interview, <i>Welt der Physik</i> , Year of Science 2023, German Ministry for Science and Education	04/23
Media interview, <i>Planeet en ster groeien samen op</i> , New Scientist Netherlands	12/22
Press coverage for Bonsor+2023 <i>Nature Astronomy</i> , University of Groningen, ScienceDaily, and others	11/22
Press coverage for Lichtenberg+2021 <i>Science</i> , phys.org, ScienceDaily, UPI, SciTechDaily, and 36+ outlets	01/21
Press coverage for Lichtenberg+2019 <i>Nature Astronomy</i> , ETH Zurich, NCCR PlanetS, and 21+ outlets	02/19

Public Talks & Panels

Public talk <i>Formation and Evolution of Terrestrial Worlds</i> , DOT Planetarium Groningen	05/24
Public talk <i>Entstehung und Entwicklung terrestrischer Welten</i> (~100 attendees), Max Planck Institute for Solar System Research, Göttingen, DE	05/24
Panel member, <i>Golden Webinars in Astrophysics</i> : Lynnae Quick, <i>Cryovolcanism on Ocean Worlds</i>	10/21
Panel member, <i>Golden Webinars in Astrophysics</i> : Frances Westall, <i>Biosignatures and the Search for Extraterrestrial Life</i>	10/21
Public talk <i>Wasser, Wüste, oder Lava: wie entstehen erdähnliche Planeten?</i> , Planetarium Göttingen, published on Urknall, <i>Weltall und das Leben</i> (>34'500 views)	11/20
Public talk <i>Distant worlds in the computer: planet formation via gravitational instabilities</i> , Göttingen University, DE	03/14

Blog Posts & Videos

Blog articles and paper summary videos published on Medium/Forming Worlds, YouTube, and NCCR PlanetS.	
<i>Hidden water in magma ocean exoplanets</i> (video)	10/21
<i>The turbulent hearts of shrouded super-Earths</i> (blog + video)	05/21
<i>Early carbon depletion of terrestrial worlds from the outside-in</i> (blog + video)	05/21
<i>Molten exoplanets as a window into the earliest Earth</i> (blog + video)	01/21
<i>Formation of the Solar System in two steps</i> (blog + video)	01/21
<i>Entstehung des Sonnensystems in zwei Phasen</i> , popular article in <i>Sterne und Weltraum</i>	08/21
<i>Two emergent faces of rocky planetary systems</i> (blog)	02/19
<i>Planetesimal magmatism as a key to the chemical assembly of terrestrial planets</i> (blog)	01/19
<i>Spotting protoplanet collision afterglows in the stellar neighbourhood</i> (blog)	11/18
<i>Impact splash chondrule formation during planetesimal recycling</i> (blog)	11/17
<i>Supernova ejecta polluting young planetary systems</i> (blog)	08/16
<i>On the variety of asteroid interiors</i> (blog)	04/16
Author and referee for <i>Astrobites</i> , a graduate student-run blog introducing undergraduates to astrophysical research (20 peer-reviewed articles, >13'000 views; 24 reviews; application committee 2015, 2016)	09/14–08/19
<i>Why open research practices are a clever move</i>	12/16
<i>Modest chaos in the early solar system</i>	11/16
<i>Driving planetary dynamos by giant impacts</i>	08/16

Water worlds – self-arrests, thermostats and long-term climate stability	07/16
Massive circumstellar disks accrete faster than low-mass ones	05/16
Grand fireworks from the Local Super-Bubble	04/16
Bridging the gap: asteroid collisions without quantum foam	03/16
The tempestuous adolescence of circumstellar disks	02/16
Sustainable climates on greenhouse super-Earths?	11/15
Ripping apart asteroids to account for Earth’s strangeness	11/15
Dry out super-Earths via giant impacts	10/15
Triggered fragmentation in self-gravitating disks	09/15
Giant planets from far out there	08/15
Nature’s Starships Vol. II – A Hitchhiker’s Guide to the Bloody Cold Beginnings	07/15
Nature’s Starships Vol. I – Ride in on Shooting Stars	06/15
Circumplanetary disks... soon!	05/15
Hot Shots: How to trigger star formation in the early Universe by supernova blast-waves	05/15
Why is star formation so inefficient?	04/15
Are extrasolar worlds more likely to be water-rich?	03/15
Sneak a peek on the cause of death of protoplanetary disks	02/15

Other Activities

Letters to a Pre-Scientist pen pal	2019–2020
<i>Expedition Solar System</i> , Focus Terra science exhibition, ETH Zurich	03/18
Figures and media for popular science article <i>Exotische Welten</i> in <i>Sterne und Weltraum</i>	08/15
Zurich Scientifica 2015, <i>Licht und Astronomie</i> , public science exhibition, ETH Zurich	09/15
Astrobites reddit Ask-Me-Anything	06/15
Q&A visit, primary school, Zurich Seefeld	06/15
3D rendering video for Bovino et al. (2014), <i>ApJL</i> 790, L35 (phys.org , INAF, HPC Wire)	07/14

Academic Associations

Royal Netherlands Astronomical Society	05/24–
European Association of Geochemistry	07/21–
International Astronomical Union	05/21–
American Geophysical Union	01/20–
European Astronomical Society	06/19–
Royal Astronomical Society	06/19–
Europlanet Society	03/19–
European Geosciences Union	01/19–
Swiss Society for Astrophysics and Astronomy	01/15–01/24
German Astronomical Society	11/13–
German Physical Society	11/10–