

**PERSONAL
INFORMATION**

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Nationality: Indian

Center for Space and Habitability
University of Bern
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EMPLOYMENT

Feb. 2019 – present, *PostDoc*, Center for Space and Habitability, Bern, Switzerland
Geochemical cycles in rocky exoplanets

July 2010 – Aug. 2012, *Analyst*, Nomura, Mumbai, India
Product development and maintenance for global equities trade monitoring tools

May 2009 – July 2009, *Developer*, IBM, Bangalore, India
Software development for the hardware verification of IBM PowerPC computers

May 2008 – July 2008, *Trainee*, Omega Electronics, Jaipur, India
Development of a RFID-based educational training kit and demonstration of a sales video

May 2007 – June 2007, *Trainee*, TATA Power, Mumbai, India
Analysis of the pressure-temperature calibration process of the transmitters of power station

EDUCATION

Sep. 2014 – Dec. 2018, Ph.D., Astrophysics, University of Amsterdam, The Netherlands
Thesis: Diving deep into rocky exoplanets

Sep. 2012 – July 2014, M.Sc., Astronomy & Astrophysics, KU Leuven, Belgium
Thesis: The interior structure of super-Earths

Aug. 2006 – July 2010, B.Tech., Electronics Engineering, IIT Kharagpur, India
Thesis: s-MAC protocol for Wireless Sensor Networks

DISTINCTIONS

July 2014, Graduated M.Sc. degree with *magna cum laude*, KU Leuven

July 2010, Graduated B.Tech. degree with *Honours*, IIT Kharagpur

Apr. 2006, Secured 99.9 percentile among 0.5 million candidates in all-India engineering entrance examinations, IIT-JEE and AIEEE

**PUBLICATIONS
(PEER-REVIEWED)**

Hakim, K., et al., Geochemistry of the inorganic carbon cycle on rocky exoplanets (in preparation).

Hakim, K., van den Berg, A., Vazan, A., Höning, D., van Westrenen, W., Dominik, C., Thermal evolution of rocky exoplanets with a graphite outer shell (under review).

Hakim, K., Spaargaren, R., Grewal D.S., Rohrbach A., Brendt J., Dominik, C., van Westrenen, W. (2019), Mineralogy, structure and habitability of carbon-enriched rocky exoplanets: A laboratory approach, *Astrobiology* 19, 7.

Hakim, K., van Westrenen, W., Dominik, C. (2018), Capturing the oxidation of silicon carbide in rocky exoplanetary interiors, *Astronomy & Astrophysics* 618, L6.

Hakim, K., Rivoldini, A., Van Hoolst, T., Cottenier, S., Jaeken, J., Chust, T., Steinle-Neumann, G. (2018), A new ab initio equation of state of hcp-Fe and its application to the interior structure and mass-radius relation of rocky super-Earths, *Icarus* 313, 61–78.

**SELECTED
CONFERENCE
TALKS**

Sep. 2019, European Planetary Science Congress, Geneva, Switzerland

Apr. 2017, Formation and Dynamical Evolution of Exoplanets, Aspen, Colorado, USA

Mar. 2017, the 48th Lunar and Planetary Science Conference, Houston, Texas, USA

May 2016, the 71st Netherlands Astronomy Conference, Nunspeet, The Netherlands

Apr. 2016, the 13th Netherlands Geology Congress, Veldhoven, The Netherlands

May 2015, Exoplanet Conference, Lund, Sweden

**COMPUTATIONAL
SKILLS**

Languages/Software: Python, Shell scripting, Java, MySQL, C, Fortran90, Mathematica, MATLAB

**TEACHING/
SUPERVISION
EXPERIENCE**

Teacher for Planetary Science (Exoplanets lecture), MSc (2018)

Primary Supervisor for Dieke Beentjes, BSc (2018), Rob Spaargaren, BSc (2016)

Teaching Assistant for Interstellar & Circumstellar Matter, MSc (2015–2017)

**ADVANCED
TRAINING
COURSES**

July 2016, New Directions in Planet Formation, Lorentz Center, Leiden, The Netherlands

Oct. 2015, Application of X-ray metrology for material science research, Enschede, The Netherlands

Mar. 2015, the 45th Saas-Fee course on From Protoplanetary Disks to Planet Formation, Swiss Society for Astrophysics & Astronomy, Les Diablerets, Switzerland

**SERVICE/
ORGANIZATIONAL
WORK**

Sep. 2016 – Sep. 2017, *PhD Representative*, PhD-PostDoc Council, API Institute for Astronomy, University of Amsterdam

May 2015, *Organizer*, Planetary and Exo-Planetary Science Network (NWO-PEPSci) PhD-PostDoc Meeting, University of Amsterdam

Sep. 2012 – July 2014, *Student Representative*, Permanent Education Committee, MSc in Astronomy and Astrophysics, KU Leuven

**SCIENCE
COMMUNICATION/
OUTREACH**

May 2019, Public science talk in the Astronomy on Tap event, Bern, Switzerland

Mar. 2017, Participated in FameLab Amsterdam – a science communication workshop and competition

Aug. 2016, Gave a science talk for bachelor students at University of Los Andes, Bogotá, Colombia

**FORMER
RESEARCH
EXPERIENCE**

July – Aug. 2014, Nicolaus Copernicus Astronomical Center, Warsaw, Poland
Data reduction pipeline of *Canada-France-Hawaii-Telescope* for *SuperWASP* exoplanets

Sep. – Oct. 2013, Mercator Telescope, Roques de las Mouchachos Observatory, La Palma, Spain
Spectroscopic study of three *Kepler* planet candidates

Mar. – June 2013, Belgian Institute for Space Aeronomy, Brussels, Belgium
Study of Earth's magnetopause based on the data from *Ampere/IRM* and *Cluster* spacecrafts