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## PROFESSIONAL EXPERIENCE

- 01/2025 – today **Postdoctoral Research Fellow at Southwest Research Institute (SwRI), Boulder**
- 02/2026 – today **Contractor (20%) at Laboratory for Atmospheric and Space Physics, University of Colorado, Boulder**
- 10/2024 – 12/2024 **Postdoctoral Researcher at Department of Space Research & Planetary Sciences, Physics Institute, University of Bern**

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## EDUCATION

- 10/2020 – 09/2024 **PhD in Physics, Department of Space Research & Planetary Sciences, Physics Institute, University of Bern**  
“Reading between the lines: Linear surface features on Jupiter’s moon Europa interpreted with Deep-Learning”, supervised by Prof. Dr. Nicolas Thomas
- 09/2019 – 09/2020 **Master of Science in Physics, University of Bern**  
“The Impact of Climate Change On Site Characteristics of Extremely Large Telescopes”, supervised by Prof. Dr. Brice-Olivier Demory
- 09/2016 – 09/2019 **Bachelor of Science in Physics (Minor: Mathematics), University of Bern**  
“Polarization gating for imaging subsurface structures in backscattering”, supervised by Prof. Dr. Martin Frenz

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## MISSION INVOLVEMENT - NASA EUROPA CLIPPER

- 03/2025 – today **Co-Leader of the Europa Clipper Sunrise Group**
- 05/2021 – today **Affiliate of the Europa Imaging System (EIS) instrument science team**  
Lead of the EIS target database development  
Development of a photometrically corrected USGS basemap for Europa

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## MENTORING

- 06/2026 – 08/2026 **Europa Clipper ICONS mentor of intern Katelyn Foley**  
“Compositional Analysis of Linear Surface Features”
- 01/2026 – today **APS independent study mentor of Jesse Magni, co-supervised with Prof. Paul Hayne**  
“Geologic age sequencing of linear surface features on Jupiter’s moon Europa”
- 06/2025 – 08/2025 **Europa Clipper ICONS mentor of intern Elise Olmstead**  
“MicroMapper: a Deep-Learning Tool for Microfeatures on Europa”

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## TEACHING

- 02/2020 – 12/2024 **Teaching assistant, University of Bern**  
Physics for veterinary students  
Physics for medical students
- 09/2015 – 09/2020 **Private tutor in mathematics and physics, Bern**  
Tutoring of primary, secondary, high-school, and university-level students  
Students preparation for high-school entrance exam

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## AWARDS & PRIZES

- 03/2026 **Anton Fink Science Prize for Artificial Intelligence (€5,000)**  
Doctoral Thesis Prize
- 05/2023 **Outstanding Student and PhD candidate Presentation (OSPP) Awards 2023**  
“Mapping linear surface features on Europa using a deep learning framework” (C. Haslebacher, N. Thomas, EGU23)

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## GRANTS / FELLOWSHIPS

- 06/2024 **Postdoc.Mobility fellowship (2 years), Swiss National Science Foundation (\$145,276)**  
“Unravelling Europa’s tidal evolution through lineament sequencing” (with Dr. Alyssa Rhoden)
- 12/2023 **MERAC Travel Award (Mobilising European Research in Astrophysics and Cosmology), Swiss Society for Astrophysics and Astronomy (\$4,700)**  
“Advancing the science strategy for the Europa Imaging System”

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## OUTREACH

- 12/2024 **Visit to a Kindergarten, Eichberg, Switzerland**  
Development of a lesson about Europa with interactive elements in collaboration with Richa Wüthrich
- 05/2024 **Pint of Science Talk, Brüw (Brewpub), St. Gallen, Switzerland**
- 05/2023 **Pint of Science Talk, O Bolles Cafe and Bar, Bern, Switzerland**
- 01/2021 **Primary school visit**  
Anaglyphs of Mars and Europa prepared in booklets

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## SERVICE

- 02/2025 – today **Co-Leader of the AI@SwRI group together with Dr. Andrés Munoz**  
A group I created to upskill together, touching on all aspects of Artificial Intelligence
- 2022 – today **Referee for Advances in Space Research, Nature (Scientific Reports), JGR Planets**
- 01/2024 – 12/2024 **Member of the Colloquium Organizing Committee at the Department of Space Research & Planetary Sciences at the University of Bern**
- 03/2022 – 07/2022 **Swiss Institute for Planetary Sciences (SIPS) working group ‘Vision and Research until 2050’**  
Responsible for small bodies (up to Earth mass) in our solar system

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## INVITED TALKS (SEMINARS, COLLOQUIA & LECTURES)

- 04/2026 **Deggendorf Institute of Technology (Guest Lecture for AI students)**
- 03/2026 **Stony Brook University, Department of Geosciences (Colloquium)**
- 05/2025 **Jet Propulsion Laboratory (Colloquium) / California Institute of Technology (Seminar)**
- 01/2024 **Southwest Research Institute, Boulder (Seminar)**

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## EXTRACURRICULAR ACTIVITIES

- 09/2015 – 07/2016 **Study of music, University of the Arts (HKB), Bern**  
Viola with Prof. Getrud Weinmeister
- 07/2018 – 02/2020 **Intern Surgical Navigation (30%), CAScination AG, Bern**  
Development of tissue-mimicking phantoms with ultrasound- and computed-tomography-characteristics  
Verification & Validation of medical software

Total number of published papers	8
1st-author papers	3
2nd-author papers	3
1st-author book chapters	2
1st-author datasets	4
Number of citations	93 (Google Scholar) / 54 (Scopus)
H-index	4 (Google Scholar and Scopus)

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PEER-REVIEWED PUBLICATIONS (8)

- 05/2026 Peixoto, V. F., Morgado, B. E., Tognoli, F. M. W., Haslebacher, C. (2026). *Topological Analysis of Europa's Fracture Networks: Quantitative evidence for Hemispheric Asymmetry*. Icarus, 449(116943). <https://doi.org/10.1016/j.icarus.2026.116943>
- 11/2025 Dümbsgen, L., Haslebacher, C. (2025). *Nonparametric Smoothing of Directional and Axial Data*. Statistica Neerlandica 79, e70014. <https://doi.org/10.1111/stan.70014>
- 05/2025 Haslebacher, C., Tejero, J. G., Prockter, L. M., Leonard, E. J., Rhoden, A. R., Thomas, N. (2025). *Length, Width, and Relative Age Analysis of Lineaments in the Galileo Regional Maps with LineaMapper*. The Planetary Science Journal, 6(6), 133. <https://doi.org/10.3847/PSJ/ADD349>
- 12/2024 Turtle, E., McEwen, A., Patterson, G., Ernst, C., Elder, C., Slack, K., McDermott, J., Meyer, H., DeMajistre, R., Espiritu, R., Bland, M., Becker, M., Collins, G., Corlies, P., Darlington, H., Derr, C., Daubar, I., Detelich, C., Edens, W., Fletcher, L., Gardner, C., Graham, F., Hansen, C., Haslebacher, C., Hayes, A., Humm, D., Hurford, T., Kirk, R., Kutsop, N., Lees, W., Lewis, D., London, S., Magner, A., Mills, M., Barr Mlinar, A., Morgan, F., Nimmo, F., Ocasio Milanes, A., Phillips, C., Pommerol, A., Prockter, L., Quick, L., Robbins, G., Stickle, A., Stewart, B., Sutton, S.S., Thomas, N., Torres, I., Tucker, O., Auken, V., Wilk, K., Seifert, H., Niewola, J. (2024). *The Europa Imaging System (EIS) Investigation*. Space Science Reviews, Collection "Europa Clipper: A Mission to Explore Ocean World Habitability," 220. <https://doi.org/10.1007/s11214-024-01115-9>
- 03/2024 Haslebacher, C., Thomas, N., Bickel, V. T. (2024). *LineaMapper: A deep learning-powered tool for mapping linear surface features on Europa*. Icarus, 410(115722). <https://doi.org/10.1016/j.icarus.2023.115722>
- 09/2022 Haslebacher, C., Demory, M. E., Demory, B. O., Sarazin, M., Vidale, P. L. (2022). *Impact of climate change on site characteristics of eight major astronomical observatories using high-resolution global climate projections until 2050 - Projected increase in temperature and humidity leads to poorer astronomical observing conditions*. Astronomy & Astrophysics, 665, A149. <https://doi.org/10.1051/0004-6361/202142493>
- 05/2020 Eigl, B., Haslebacher, C., Müller, P. C., Andreou, A., Gloor, B., Peterhans, M. (2020). *A multimodal pancreas phantom for computer-assisted surgery training*. IEEE Open Journal of Engineering in Medicine and Biology, 1, 166-173. <https://doi.org/10.1109/OJEMB.2020.2999786>
- 04/2020 Müller, P. C., Haslebacher, C., Steinemann, D. C., Müller-Stich, B., Hackert, T., Peterhans, M., Eigl, B. (2020). *Image-guided minimally invasive endopancreatic surgery using a computer-assisted navigation system*. Surgical Endoscopy. <https://doi.org/10.1007/s00464-020-07540-5>

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DATASETS (4)

- 03/2025 **Haslebacher, C.** (2026). *Subsolar Ground ‘Sun’ Azimuth Galileo images of Europa processed with USGS isis*. Mendeley Data, V1, <https://doi.org/10.17632/8n6zvy8vdd.1>
- 06/2025 **Haslebacher, C.**, Gamazo Tejero, J., Prockter, L.M., Leonard, E.J., Rhoden, A.R., Thomas, N. (2025). *Length, width, and relative age analysis of lineaments in the Galileo regional maps with LineaMapper (Haslebacher et al., PSJ, 2025) accompanying data*. Mendeley Data, V2, <https://doi.org/10.17632/rjhsjrnxgv.2>
- 06/2025 **Haslebacher, C.**, Thomas, N., Bickel, V.T. (2023). *LineaMapper: A deep learning-powered tool for mapping linear surface features on Europa (Haslebacher et al., Icarus, 2023) accompanying data*. Mendeley Data, V1, <https://doi.org/10.17632/nxnwj6hy4s.1>
- 01/2023 **Haslebacher, C.**, Demory, M.-E., Demory, B.-O., Sarazin, M., Vidale, P. L. (2023). *Model agreement and trend analysis data associated to the publication: “Impact of climate change on site characteristics of eight major astronomical observatories using high-resolution global climate projections until 2050”*. Zenodo, <https://doi.org/10.5281/zenodo.7541457>

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BOOK CHAPTERS (4)

- 04/2026 **Haslebacher, C.**, Bolmont, E., Cilibrasi, M., Grone, J., Haslebacher, N., Helled, R., Kervazo, M., Ligterink, N. F. W., Lovis, C., Mayer, L., Obersnel, L., Ottersberg, R., Oza, A. V., Patty, C. H. L., Pommerol, A., Portyankina, G., Rhoden, A. R., Schlarman, L., Shibaike, Y., Singh, V., Vorburger, A. H., Wurz, P. Active moons in our Solar System and beyond - Europa, Enceladus, Triton, and (exo-)Io. In SSR collection and book “The National Center for Competence in Research, PlanetS: A Swiss-wide network expanding planetary sciences”. Editors: Benz, W., Schönbächler, M., Thomas, N., Udry, S., <https://arxiv.org/abs/2604.12104>
- 04/2026 Davoult, J., Bickel, V., **Haslebacher, C.**, Alibert, Y., Gruchola, S., Cantero, C., Egger, J. A., Eltschinger, R., Eyholzer, Y., Garvin, E. O., Gruchola, S., Leleu, A., Marques, S., Zhao, Y. *Machine Learning as a Transformative Tool for (Exo-) Planetary Science*. In SSR collection and book “The National Center for Competence in Research, PlanetS: A Swiss-wide network expanding planetary sciences”. Editors: Benz, W., Schönbächler, M., Thomas, N., Udry, S., <https://arxiv.org/abs/2604.09152>
- 12/2025 Prieto-Ballesteros, O., Tosi, F., McKinnon, W. B., Rhoden, A. R., Schenk, P., Vance, S. D., Wagner, R., Hao, J., Finkel, P. L., de Dios Cubillas, A., **Haslebacher, C.**, Ding, M. *Geology and Surface Properties of the Galilean Moons*. In SSR collection and ISSI book “Exploring the Jovian Satellite System: From Formation to Habitability”. Editors: Blanc, M., Bolton, S., Ding, M., Hao, J., Kimura, T., Lainey, V., Li, L., Nimmo, F., Prieto-Ballesteros, O., Tosi, F., <https://link.springer.com/article/10.1007/s11214-026-01273-y>

- Submitted 06/2024 **Haslebacher, C.**, Thomas, N., Rossi, C., Leonard, E. J., Prockter, L. M., Sabbeth, L.,  
in press 05/2026 Hasnain, Z., and Tejero, J. G. *A deep-learning powered global lineament map of Europa and applications to other planetary bodies*. In Europlanet book “Atlas of Geological Planetary Mapping”. Editors: Marinangeli, L., and Pantaloni, M.

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RECENT CONFERENCE PRESENTATIONS

- 12/2025 **Haslebacher, C.**, Dümbgen, L., Rhoden, A., Leonard, E.J., Prockter, L.M., Thomas, N. (2025). *Lineament Azimuths and Europa's Tidal Stress Field - A Correlation Study*. AGU25.
- 08/2025 **Haslebacher, C.**, Rhoden, A. R., Ferguson, S. N., Almeida, M., Turtle, E. P., Leonard, E. J., Read, M. (2025). *Optimizing the Uranus Orbiter and Probe Mission with a Prioritized Geological Target Database - An Initial Concept*. International Workshop on Instrumentation for Planetary Missions - 6.
- 03/2024 **Haslebacher, C.**, Rhoden, A.R., Thomas, N. (2024). *Constraining Lineament Formation on Europa: An Investigation of the Spatiotemporal Evolution of Lineament Azimuths*. 55th Lunar and Planetary Science Conference.