

# Ian Gleason

Born: May 21, 1992 in Mexico City, Mexico • Nationality: Mexican, Lithuanian

Languages: Spanish, English • Email: [ianandre@math.uni-bonn.de](mailto:ianandre@math.uni-bonn.de)

## Education

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**PhD in Mathematics**, UC Berkeley Aug 2015 - Aug 2021

*Thesis Title*: Specialization maps for Scholze’s category of diamonds.

*Supervisor*: Sug Woo Shin

**BA in Mathematics**, UNAM Mexico Aug 2010 - Nov 2014

*Thesis Title*: El antiprisma (The antiprism).

*Supervisor*: Isabel Hubard

## Current Employment

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**Assistant Professor**, National University of Singapore From Jul 2025 - Present

## Past Employment

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**Postdoctoral Position**, Max Plank Institute for Mathematics, Bonn Sep 2024 - Jul 2025

**Postdoctoral Position**, Mathematical Institute of the University of Bonn Sep 2021 - Sep 2024

Funded by DFG via Scholze’s Leibniz-Preis.

## Publications

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### Peer-Reviewed Articles

Ian Gleason. Perfectoid Nullstellensatz: results and counterexamples. *Proceedings of the American Mathematical Society*, 2023

Ian Gleason and João Lourenço. Tubular neighborhoods of local models. *Duke Math. J.*, 173(4):723–743, 2024. ISSN 0012-7094. doi: 10.1215/00127094-2023-0028. URL <https://doi.org/10.1215/00127094-2023-0028>

Ian Gleason. Specialization maps for Scholze’s category of diamonds. *Math. Ann.*, 391(2):1611–1679, 2025. ISSN 0025-5831. doi: 10.1007/s00208-024-02952-3. URL <https://doi.org/10.1007/s00208-024-02952-3>

### Preprints

Ian Gleason and Alexander B. Ivanov. Meromorphic vector bundles on the Fargues–Fontaine curve. 2023

Ian Gleason and João Lourenço. On the connectedness of  $p$ -adic period domains. 2022

Ian Gleason, Dong Gyu Lim, and Yujie Xu. The connected components of affine Deligne–Lusztig varieties. 2022

Johannes Anschütz, Ian Gleason, João Lourenço, and Timo Richarz. On the  $p$ -adic theory of local models. 2022

Ian Gleason. On the geometric connected components of moduli spaces of  $p$ -adic shtukas and local Shimura varieties. 2021

## Works in Progress

Ian Gleason. A note on the theory of kimberlites. In preparation

Ian Gleason, Linus Hamann, Alexander B. Ivanov, João Lourenço, and Konrad Zou. On the schematic and analytic constructions of the local Langlands category. In preparation

## Talks in Conferences

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- “Stacks of  $p$ -adic shtukas and the Categorical Local Langlands”, New Advances in the Langlands Program: Geometry and Arithmetic, 2024 Clay Research Conference and Workshops, Oct 2024, Clay Mathematics Institute.
- “Meromorphic vector bundles on the Fargues–Fontaine curve”, The Arithmetic of the Langlands Program Conference, Jun 2023, Hausdorff Research Institute for Mathematics.
- “The connected components of affine Deligne–Lusztig varieties and  $p$ -adic period domains”, Oberwolfach Workshop, Feb 2023, Mathematisches Forschungsinstitut Oberwolfach.
- “On the  $p$ -adic theory of local models”, 30 Rencontres Arithmétiques de Caen, May 2022, Université de Caen.
- “Variedades de Shimura locales” (Expository), 5th Meeting of Mexican Mathematicians in the World, Dec 2021, BIRS-Casa Matemática Oaxaca.
- “On the geometric connected components of unramified local Shimura varieties”, Midwest Representation Theory Conference, Oct 2020, Virtual Conference.
- “An introduction to  $p$ -divisible groups” (Expository), 50° Congreso Nacional de la Sociedad Matemática Mexicana, Dec 2017, Instituto de Matemáticas, UNAM, Mexico City, Mexico.
- “Products in abstract polytopes and the antiprism”, Kaleidoscope Conference in honor of Javier Bracho, May 2014, Ixtapa Zihuatanejo, Mexico.

## Teaching

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### Lecture courses

**Universität Bonn**, Bonn, NRW

*Lehrperson*, Algebraic Geometry I (V4A1) and Algebraic Geometry II (V4A2) 2023 - 2024

### Master Students

**Universität Bonn**, Bonn, NRW

Nico Wolf. *On connected components of moduli space of local shtukas at infinite level.* 2024

Felix Zillinger. *The analytic stack of isocrystals.* 2024

Zhen Huang. *Relative representability for some maps of local Shtuka stacks.* 2025

Dmytro Rudenko. *On smooth maps of sousperfectoid adic spaces.* 2025

## Awards and Scholarships

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Kenneth Ribet & Lisa Goldberg Award in Algebra, Mathematics Department of UC Berkeley 2020-2021

UC-MEXUS CONACYT Doctoral Fellowship for Mexican students 2017-2021