# Arnasli Yahya

PhD Student, Budapest University of Technology and Economics

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## Education

- 2020–Present **PhD**, Budapest University of Technology and Economics, Hungary. Research Topics: Sphere packings, surfaces, and discrete transformation groups in Thurston Geometries, (Supervisor: Dr. habil. Jenő Szirmai, Ph.D.)
  - 2014–2016 **Master**, *Institut Teknologi Bandung*, Indonesia. Master Programs in Mathematics | Major : Analysis and Geometry
  - 2008–2013 **Bachelor**, Universitas Negeri Semarang, Indonesia. Bachelor Programs in Mathematics Education

## Professional Affiliations

- 2020–Present **PhD Researcher**, Budapest University of Technology and Economics (BME), Faculty of Sciences, Department of Algebra and Geometry.
- 2017–Present Assistant Professor (Asisten Ahli), Institut Teknologi Bandung (ITB), Faculty of Mathematics and Natural Sciences. Analysis and Geometry Research Group

## Publications

- Yahya, Arnasli, and Jenő Szirmai. "Geodesic ball packings generated by rotations and monotonicity behavior of their densities in H<sup>2</sup>×R space." arXiv preprint arXiv:2311.12260 (2023).
- Yahya, Arnasli and Szirmai, Jenő. Optimal Ball and Horoball Packings Generated by Simply Truncated Coxeter Orthoschemes with Parallel Faces in Hyperbolic n-space for 4 ≤ n ≤ 6, (2023) Arxiv preprint https://doi.org/10.48550/arXiv.2305.05605
- 3. Yahya, Arnasli. "On The Problem of The Best Circle to Discontinuous Group in Hyperbolic Plane", Mathematical Communications. (28) (2023):121-140.
- 4. Szirmai, Jenő and Yahya, Arnasli. "Optimal ball and horoball packings generated by

3-dimensional simply truncated Coxeter orthoschemes with parallel faces", Quaestiones Mathematicae. **46 (5)** (2023): 1017-1037 DOI: 10.2989/16073606.2022.2048317.

- Yahya, Arnasli, and Szirmai, Jenő. "Visualization of Sphere and Horosphere Packings Related to Coxeter Tilings by Simply Truncated Orthoschemes with Parallel Faces." KoG (25) (2021): 64-71.
- Yahya, Arnasli, and Soeharyadi, Yudi. "Spektrum Operator Laplace pada Graf Torus." Jurnal Riset dan Aplikasi Matematika (JRAM) (4.1) (2020): 35-49.
- Prasetiyowati, Sri Suryani, Arnasli Yahya, and Aniq Atiqi Rohmawati. "Performance of Time-Based Feature Expansion in Developing ANN Classification Prediction Models on Time Series Data." International Journal on Information and Communication Technology (IJoICT) 9.2 (2023): 162-176.

#### Talks

- 1. October 2022, International Conference on Mathematics, Sciences, and Educations, "On Problem of Optimal Horosphere Packings Arrangements generated by 3 and 4 dimensional simply truncated Coxeter orthoschemes with parallel faces", Semarang State University, Indonesia (Invited Speaker).
- 2. April 2022, Department of Geometry Seminar, "Interesting Locally Optimal Ball and Horoball Arrangements in n-dimensional Hyperbolic Spaces ", Budapest University of Technology and Economics, Hungary.
- 3. November 2021, Interdisciplinary Doctoral Conference, "The structure of simply truncated Coxeter orthoscheme tilings with parallel faces and their optimal ball and horoball packing configurations", University of Pecs, Hungary.
- 4. September 2021, Scientific Professional Colloquium on Geometry and Graphics, "Visualization of Sphere and Horosphere Packings Related to Coxeter Tilings by Simply Truncated Orthoschemes with Parallel Faces", Ciovo Island, Croatia.

Teachings

#### (ITB)

- 1. Mathematics 1A: (1-2017/2018, 2018/2019, 2019/2020)
- 2. Mathematics 2A: (2-2017/2018, 2018/2019, 2019/2020)
- 3. Matrices and Vector Spaces (1-2018/2019, 2019/2020)
- 4. Mathematics 3 (2-2018/2019, 2019/2020)
- 5. Introduction to Real Analysis (3- 2018/2019)

#### (BME)

- 1. Basic Mathematics 2A: Algebra Part (Spring, 2020/2021)
- 2. Basic Mathematics 1A: Geometry Part (Winter, 2021/2022)

- 3. Analysis 1 for Engineering (Winter, 2022/2023)
- 4. Mathematics A2: Vector Functions (Spring, 2022/2023)
- 5. Mathematics A1a: Calculus-1 (Spring, 2023/2024)

# Awards / Honours, Scholarships

- 1. Strommer Gyula Award 2023
- 2. DAAD Short Research Grant-University of Potsdam, Germany, 2023
- 3. Stipendium Hungaricum Scholarship 2020 (PhD study)
- 4. Fresh Graduate DIKTI Indonesian Government 2014 (Master study)

## Research Schools / Workshops

- 1. BIRS-IMAG workshop "Minimal Surfaces in Symmetric Spaces", University of Granada, Spain, May 21 to 26, 2023 *Funded* (Invited Participant)
- 2. Seams School "Topic on Matrix Analysis", University of the Philippines Diliman, Philippines, June 28 to July 07, 2016. *Funded*
- 3. Seams School "Mathematical and Numerical Modelling for Wave Dynamics", Institut Teknologi Bandung, Indonesia, June 02 to 09, 2016 *Funded*