Yahia DJEMMADA,

- Birth-year: 1991.
- Citizenship: Algerian.
- Marital status: Married.
- Work: RECITS Lab., USTHB & National School of Mathematics, Algiers.
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- G Google Scholar   - R⁶ ResearchGate   - ⓘD ORCiD
- LinkedIn

Education

February 2021	▌ **Doctor of Philosophy in Mathematics**
	Option: *Discrete Mathematics and Operations Research*
	University of Science and Technology Houari Boumediene, Algiers, Algeria
	Thesis title: *An arithmetic and combinatorial study of the geometric polynomials*
	Thesis language: *English*

June 2015	▌ **Master of Science in Mathematics**
	Option: *Operations Research (Methods and Models for Engineering and Research)*
	University of Science and Technology Houari Boumediene, Algiers, Algeria
	Thesis title: *"Rotating Disk," A symmetric cryptosystem based on the factorization problem*
	Thesis language: *French*

July 2013	▌ **Bachelor in Mathematics**
	Option: *Operations Research*
	University of Science and Technology Houari Boumediene, Algiers, Algeria
	Language of study: *French*

Teaching Experience

Associate Professor (Maître de Conférences A), (January 2025–Present)

- ▌ "Discrete Mathematics 1" at The National School of Mathematics, Algiers, Algeria, (September 2025–January 2026).

- ▌ "Algebra 1" at The National School of Mathematics, Algiers, Algeria, (September 2025–January 2026).

- ▌ "Discrete Mathematics 2" at The National School of Mathematics, Algiers, Algeria, (January 2025–July 2025).

- ▌ "Mathematical Computing Tools" at The National School of Mathematics, Algiers, Algeria, (January 2025–July 2025).

Assistant Professor (Maître de Conférences B), (April 2022–January 2024)

- "Discrete Mathematics 1" at The National School of Mathematics, Algiers, Algeria, (September 2024–January 2025).

- "Discrete Mathematics 2" at The National School of Mathematics, Algiers, Algeria, (January 2024–July 2024).

- "Algebra 2" at The National School of Mathematics, Algiers, Algeria, (January 2024–July 2024).

- "Discrete Mathematics 1" at The National School of Mathematics, Algiers, Algeria, (September 2023–January 2024).

- "Algebra 1" at The National School of Mathematics, Algiers, Algeria, (September 2023–January 2024).

- "Mathematical Computing Tools" at The National School of Mathematics, Algiers, Algeria, (January 2023–July 2023).

- "Algorithms and Data Structures 2" at The National School of Mathematics, Algiers, Algeria, (January 2023–July 2023).

- "Algorithms and Data Structures 1" at The National School of Mathematics, Algiers, Algeria, (September 2022–January 2023).

- "Algebra 1" at The National School of Mathematics, Algiers, Algeria, (September 2022–January 2023).

- "Discrete Mathematics 2" at The National School of Mathematics, Algiers, Algeria, (February 2022–July 2022).

- "Python Programming" at The National School of Mathematics, Algiers, Algeria, (February 2022–July 2022).

Assistant Professor (Maître Assistant B), (April 2021–April 2022)

- "History of Mathematics" for 1st-year students of "Mathematics and Informatics" at University of Science and Technology Houari Boumediene, Algiers, Algeria, (April 2021–October 2021).

- "Numerical Analysis" at the Faculty of Civil Engineering, University of Science and Technology Houari Boumediene, Algiers, Algeria, (April 2021–October 2021).

Adjunct Lecturer / Teaching Assistant (Vacataire)

- "Linear Algebra" at The National School of Artificial Intelligence, Algiers, Algeria, (January 2024–July 2024).

- "Algebra 1" at The National School of Mathematics, Algiers, Algeria, (October 2021–February 2022).

Teaching Experience (continued)

🔖 "Mathematics, Statistics, and Informatics" at the Faculty of Nature and Life Sciences, University of Algiers 1, Algeria, (September 2021–February 2022).

🔖 "Mathematics, Statistics, and Informatics" at the Faculty of Nature and Life Sciences, University of Algiers 1, Algeria, (September 2017–February 2018).

🔖 "Mathematics, Statistics, and Informatics" at the Faculty of Nature and Life Sciences, University of Algiers 1, Algeria, (September 2016–February 2017).

Scientific researchs

Published papers

2024   🔖 **Djemmada, Y.**, Mehdaoui, A., Németh, L. & Szalay, L. "An identity for two sequences and its combinatorial interpretation." *Annales Mathematicae et Informaticae*, 60, 37-43.

2023   🔖 Belbachir, H. & **Djemmada, Y.**. "The (l, r)-Stirling numbers: a combinatorial approach." *Filomat*, 37(8), 2587-2598.

🔖 Belbachir, H. **Djemmada, Y.** & Németh, L. "The deranged Bell numbers." *Mathematica Slovaca*, 73(4), 849-860.

2022   🔖 Belbachir, H., **Djemmada, Y.** & Hadj-Brahim, S. "Unified Bernoulli-Euler polynomials of Apostol type". *Indian Journal of Pure and Applied Mathematics*, 1-8.

2021   🔖 Belbachir, H. & **Djemmada, Y.** "On central Fubini-like numbers and polynomials". *Miskolc Mathematical Notes*, 22(1), 77-90.

2020   🔖 Belbachir, H. & **Djemmada, Y.** "Generalized geometric polynomials via Steffensen's generalized factorials and Tanny's operators". *Indian Journal of Pure and Applied Mathematics*, 51(4), 1713-1727.

2019   🔖 Belbachir, H. & **Djemmada, Y.** "Congruence for geometric polynomials". Les Annales RECITS, Vol 06, 37-44.

Accepted papers

2025   🔖 **Djemmada, Y.**, Mehdaoui, A., Németh, L., & Szalay, L. "The Fibonacci-Fubini and Lucas-Fubini numbers." *The Fibonacci Quarterly* (Accepted).

Preprints

🔖 **Djemmada, Y.**, Kargın, L., & Can, M. "Partial Deranged Bell Numbers and Their Combinatorial Properties." (Submitted).

Conferences & scientific activities

December 2025   🔖 Head of Organization Committee at **The National Conference on Number Theory and It's Interactions (NCNTI25)**, National Higher School of Mathematics, Algiers, Algeria.

July 2024   🔖 Leader of the Benjamin exam at the **First Algerian Olympiad of Mathematics (ALMO24)**, organized by the Ministry of National Education, Algiers, Algeria.

June-July 2024   🔖 Trainer and Corrector at the **First Algerian Olympiad of Mathematics (ALMO24)**, organized by the Ministry of National Education, Algiers, Algeria.

Conferences & scientific activities (continued)

January 2024 — ▪ Organizer at **R Programming training days**, University of Science and Technology Houari Boumediene, Algiers, Algeria.

November 2023 — ▪ Organizer & Tutor at **Python and Sagemath training days**, University of Science and Technology Houari Boumediene, Algiers, Algeria.

▪ Speaker at the **Scientific Days of Laboratory**, University of Science and Technology Houari Boumediene, Algiers, Algeria. (Title: On the (l, r)-partitons and (l, r)-permutations numbers).

May 2023 — ▪ Organizer & Judge at **COMPACT-2023** event, National Higher School of Mathematics, Algiers, Algeria.

August 2021 — ▪ Speaker at the **10th International Eurasian Conference on Mathematical Sciences and Applications**, Sakarya University, Sakarya, Turkey. (Title: On the total number of deranged partitions).

June 2021 — ▪ Speaker at the **National Conference on Applied Mathematics and Didactics**, Ecole Normale Supérieure El Katiba Assia Djebar, Constantine, Algeria. (Title: A combinatorial extension of the Stirling numbers).

May 2021 — ▪ Speaker at the **1st International Conference on Pure and Applied Mathematics**, University of Kasdi Merbah, Ouargla, Algeria. (Title: The deranged Bell numbers).

February 2019 — ▪ Speaker at the international conference **TAMTAM**, University Abu Bekr Belkaid, Telemcen, Algeria. (Title: On central Fubini polynomials).

December 2018 — ▪ Attended the first PhD students' day **Advanced technologies for electronic systems, sustainable energies, telecommunications, and signal/image processing**, The National School of Electronics and Telecommunications, Sfax, Tunisia.

September 2018 — ▪ Organizer at **Trees Structure in Theoretical Informatics and Enumerative Combinatorics Days**, University of Science and Technology Houari Boumediene, Algiers, Algeria.

April 2018 — ▪ Speaker at the **Scientific Days of Laboratory**, University of Science and Technology Houari Boumediene, Algiers, Algeria. (Title: On a new Fubini-type polynomials).

February 2018 — ▪ Speaker at the **Seminar of Laboratory**, University of Science and Technology Houari Boumediene, Algiers, Algeria. (Title: Une classe de polynômes de type Fubini).

May 2017 — ▪ Speaker at the **Seminar of Laboratory**, University of Science and Technology Houari Boumediene, Algiers, Algeria. (Title: Quelques propriétés arithmétiques des polynômes de Fubini).

April 2017 — ▪ Organizer at **SageMath Days**, University of Science and Technology Houari Boumediene, Algiers, Algeria.

▪ Speaker at the **Scientific Days of Laboratory**, University of Science and Technology Houari Boumediene, Algiers, Algeria. (Title: Congruence for geometric polynomials).

Grants and awards

▪ **PNE grant,** (December 2019-February 2021)
Awarded through the **Exceptional National Program (2019-2020)** to visit Sopron University, Hungary, for 10 months.

Grants and awards (continued)

🔖 **Award from the Minister of National Education,** (July 2024)
Received for being part of the organizing team in the **First Algerian Mathematical Olympiad (ALMO24).**

Scientific visits

September 2025	🔖 Research visit to The Department of Mathematics and Computer Science "U. Dini" (DIMAI) at the University of Florence, Florence, Italy, lasting two weeks.
February 2025	🔖 Research visit to Akdeniz University, Antalya, Turkey, lasting two weeks.
February 2024	🔖 Research visit to Akdeniz University, Antalya, Turkey, lasting two weeks.
February 2023	🔖 Research visit to Sopron University, Sopron, Hungary, lasting two weeks.
Dec 2019-Feb 2021	🔖 Extended research visit to Sopron University, Sopron, Hungary, spanning 14 months.
Jun-Jul 2019	🔖 Research visit to Sfax University, Tunisia, Sfax, lasting one month.
Nov-Dec 2018	🔖 Research visit to Sfax University, Tunisia, Sfax, lasting one month.

Research Interests

🔖 **Enumerative Combinatorics**
Set Partitions, Special Sequences, Patterns Enumeration, Permutations, …

🔖 **Analytic Combinatorics**
Symbolic methods, Generating functions, Recurrences, Asymptotics, …

🔖 **Graph Theory**
Algorithms, Graph Coloring problems, Graph Sequences, …

Skills

Languages	🔖 Arabic: mother tongue. English: very good. French: very good. German: basics.
Coding	🔖 Python, C & C++, MATLAB, Mathematica, SageMath, LaTeX.
Web Dev	🔖 Html, css, JavaScript.

References

🔖 **Prof. Hacène Belbachir**
Professor
University of science and technology Houari Boumediene, BP 32, El Alia, Bab Ezzouar, 16111 Algiers, Algeria.
✉ hacenebelbachir@gmail.com

🔖 **Prof. Ayhan Dil**
Associate Professor
Akdeniz University, Department of Mathematics, 07058 Antalya, Turkey.
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References (continued)

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Sopron University, 9400 Sopron, Bajcsy-Zsilinszky street 4.
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Dr. Németh László
Dr. habil.