

# Research interests intersecting Mathematical Research Practices

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# GENDER GAP IN SCIENCE

A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences: How to Measure It, How to Reduce It?

Q SEARCH

## Project



A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences

## Work packages



Description of the methodologies and goals of the three tasks within the project

## Organization



List of the working groups, committees and boards involved in the project

## About



Publications, archives and promotional materials of the project

## Book & Booklet

Gender Gap in Science book and booklet containing final results and recommendations from the project

Task 1: Global Survey of Mathematical, Computing, and Natural Scientists

Task 2: Joint data-backed study on publication patterns

Task 3: Database of good practices



International Science Council



INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY



INTERNATIONAL MATHEMATICAL UNION (IMU)



Gender InSITE



# Publications related to the Gender Publication Gap

## Methods:

- Santamaría, L., & Mihaljević, H. (2018). Comparison and benchmark of name-to-gender inference services. *PeerJ Computer Science*, 4, e156.
- Mihaljević, H., Tullney, M., Santamaría, L., & Steinfeldt, C. (2019). Reflections on gender analyses of bibliographic corpora. *Frontiers in Big Data*, 2, 29.
- Mihaljević, H., & Santamaría, L. (2021). Disambiguation of author entities in ADS using supervised learning and graph theory methods. *Scientometrics*, 126(5), 3893-3917.

## Analyses:

- Mihaljević-Brandt, H., Santamaría, L., & Tullney, M. (2016). The effect of gender in the publication patterns in mathematics. *PLoS One*, 11(10), e0165367.
- Gledhill, I., Roy, M. F., Chiu, M. H., Ivie, R., Ponce-Dawson, S., & Mihaljević, H. (2019). A global approach to the gender gap in mathematical, computing and natural sciences: How to measure it, how to reduce it?. *South African Journal of Science*, 115(3-4), 1-3.
- Mihaljević, H., & Roy, M. F. (2019). A data analysis of women's trails among ICM speakers. In *World Women in Mathematics 2018: Proceedings of the First World Meeting for Women in Mathematics (WM) <sup>2</sup>* (pp. 111-128). Springer International Publishing.
- Mihaljević, H., & Santamaría, L. (2020). Authorship in top-ranked mathematical and physical journals: Role of gender on self-perceptions and bibliographic evidence. *Quantitative Science Studies*, 1(4), 1468-1492.
- Steinfeldt, C., & Mihaljević, H. (2023). A machine learning approach to quantify gender bias in collaboration practices of mathematicians. *Frontiers in big Data*, 5, 989469.

# Current projects / research

Supervisor of a PhD project on collaboration in mathematics

- Similarity of mathematical texts as basis for studying collaboration, internationality and interdisciplinarity in mathematics

Project proposal for studying Data Science methods typically applied to bibliographic data sources

Supporting European Women in Mathematics (EWM) to collect approximate numbers of female researchers in mathematics using publication data