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South Africa and the Joint Data-backed Study of Publication Patterns of the Global Gender Gap project

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Peer-reviewed publications are the basis of the body of scientific knowledge and of acknowledgement of contributions to science. In many countries, authorship is also used in the evaluation of individual performance and institutional achievement, and has become a part of hiring and promotion practices. As the participation of women in physics changes, it is of interest to understand whether a gender gap exists in publication. A Joint Data-backed Study of Publication Patterns was undertaken as a task within the Gender Gap in Science Project initiated through the International Science Council. This global project was a collaboration of eight scientific unions (mathematics, chemistry, physics, astronomy, industrial and applied mathematics, biosciences, history and philosophy of science, and computing machinery) together with three international organisations (UNESCO, GenderInSITE, and the Organisation of Women in Science for the Developing World). The bibliometric study of gender patterns was based on metadata available through publication databases, which allow inference of author gender from name strings using services that provide access to databases of names. Five such services were benchmarked. Results have been made available in an interactive online tool, from which the data available from South Africa have been drawn. Within the NASA Astrophysics Data System, the rise in South African publications in the field can be observed, together with the evolution of the proportion of authorships by women. Global results on fractional authorships by women in high-impact journals in theoretical physics shows average percentages of women near 10%, with little or no tendency to rise since 1999, while top journals in astrophysics and astronomy show steadily rising fractional authorships by women which have approximately doubled since 1999 [Mihalević and Santamaría, chapter in Roy, Guillopé and Cesa, eds., A Global Approach to the Gender Gap in Mathematical, Computing, and Natural Sciences, Int. Mathematical Union, Berlin 2020].

Apply to be considered for a student ; award (Yes / No)?

No

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