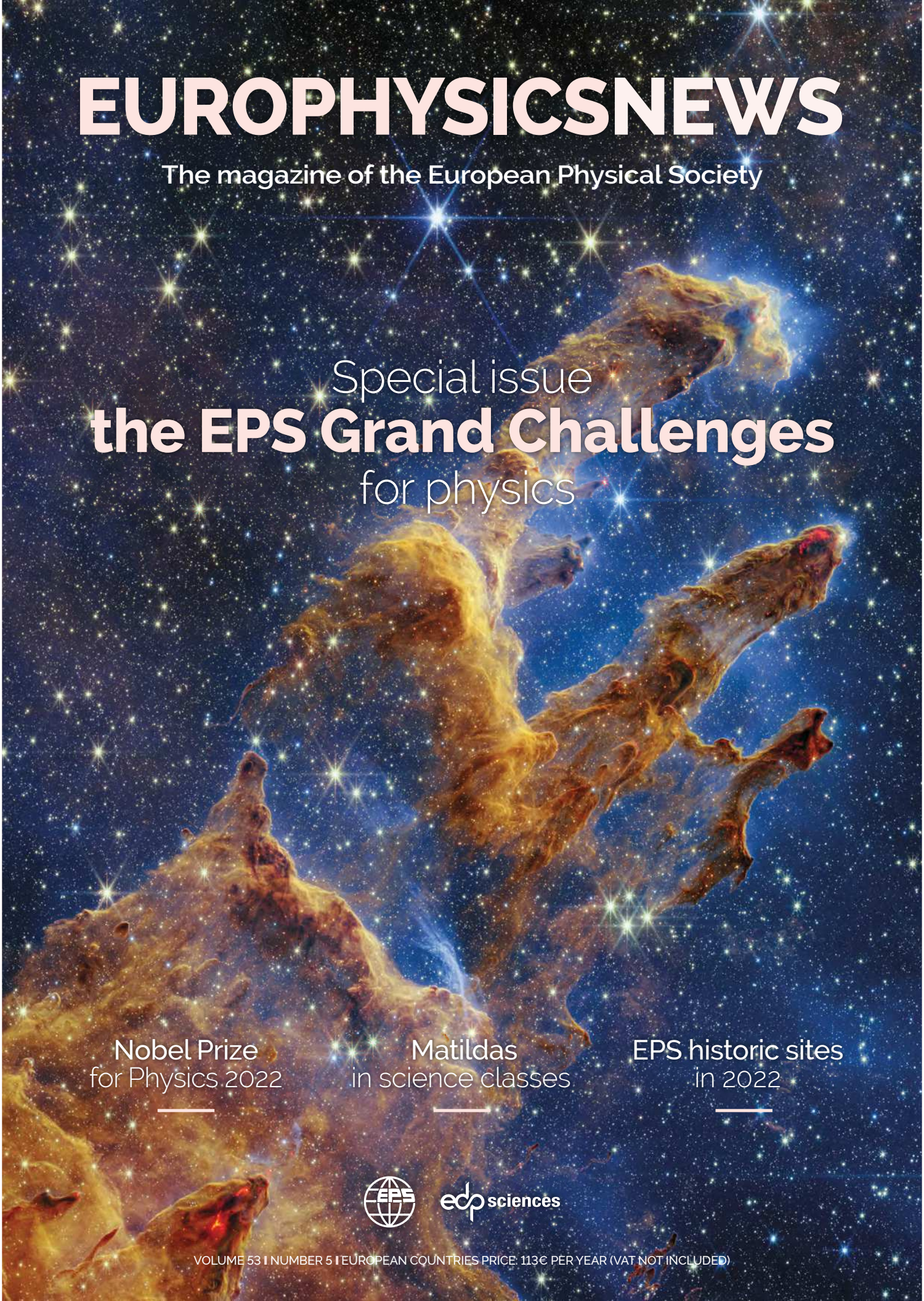

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Nobel Prize
for Physics 2022

Matildas
in science classes

EPS historic sites
in 2022

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Let "Matildas" get the place in science classes that they deserve

The world population is almost equally split between men and women[1] and the same statistics stands for Europe. Yet, when a girl enters a European Physics class, the teacher or the lecturer is most likely a man, probably white and in his middle age or older.

As she learns about the developments of Physics throughout the years, it is almost certain that she is going to hear only about men (not necessarily aged, but most of them white) who made discoveries and contributions to the advancements of the field. This reality unfortunately also occurs for other disciplines of science. Where are the women scientists? Is it possible that the pillars, on which Physics stands, were built almost only by men? Well, it is true that men have kept women subordinated for a long time, not allowing them to study, nor to hold positions of power. Science is no exception, so that women scientists have been less numerous than men. Nonetheless, they have been present and their contributions in the advancement of the field have been determining, despite often unrecognized. So, again, where are they in the history of science?

This question can be partly answered by the Matilda effect, as defined by historian Margaret W. Rossiter [1]: women's contributions have indeed been neglected by society, as well as by their own close collaborators, mentors and relatives, who sometimes took the whole credit for joint works or even stole tout court ideas, findings and discoveries. We urge for a reformulation of science classes, lectures and books, from primary school to university, in order to give all "Matildas" the spot that they deserve. Teachers and Professors need to acknowledge all contributors of science, and not only those who officially received credit for it. Different topics commonly taught in physics classes arise from the research carried out by women. Examples abound: Chien-Shiung Wu, who experimentally demonstrated that parity is not conserved, for which her men colleagues Chen-Ning Yang and Tsung-Dao Lee were awarded the Nobel prize. Mileva Marić, who partly described the photoelectric effect, for which her husband Albert Einstein was later awarded the Nobel prize. Jocelyn Bell, discoverer of pulsars, who earned the Nobel to her supervisor Antony Hewish. And this is not even the tip of the iceberg.

We understand that it is not easy to change the way that one tells a story that they were told, and then they repeated many times in a certain way, and we recognize that sources on the subject are scarce. For this reason, we encourage Physics lecturers, teachers, and educators to include and highlight, in their narratives, and course materials, these hidden figures who, as much as those who were acknowledged, shaped modern science. The lack of recognition towards these women is firstly unfair to them, but also spoils the enthusiasm of today's women scientists, feeding the vicious circle against them in the scientific community. Promoting the role of women scientists and researchers from minorities in STEM to our youngsters will help bringing more diversity to academia and benefit the whole society. ■

References

[1] Margaret W. Rossiter, *"The Matthew Matilda effect in science". In: Social studies of science* **23.2**, 325 (1993).

[1] With this, we refer to the sex assigned at birth, which does not account for non-binaries and other gender categories.