Women in Astronomy & Physics: A Mini Glossary for Incorporating Female Researchers in the Classroom

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Women make up about 51.5% of the Brazilian population and are the majority in undergraduate and graduate programs. However, their presence in academia is significantly lower: only 43% of faculty at public universities are women, and the situation worsens at higher levels, with only one woman for every four men receiving productivity grants from CNPq [1-2]. This disparity reflects a systemic issue of lack of diversity in science, which perpetuates social and cultural inequalities. The absence of female role models makes it difficult for girls to see themselves as potential scientists, reinforcing stereotypes that associate intelligence primarily with the male gender. In this context, the website "Mulheres na Astro & Física" aims to help promote visibility and recognition of women's contributions in the fields of physics and astronomy through an online glossary that organizes female researchers who can be cited in the classroom. The glossary categorizes researchers by chronological order, encompassing all scientists listed so far, and by discipline, including only those whose scientific contributions relate to the syllabus of the respective discipline. Among the mentioned scientists are Maria Cunitz (1610 — 1664), who improved Kepler's mathematical methods for determining the positions of planets; Émilie du Châtelet (1706 — 1749), who published an important translation of Isaac Newton's book, contributing her own insights to Newtonian mechanics, including the postulation of an additional law of conservation for total energy; and Katie Bouman (1989 —), who led the development of an algorithm for imaging black holes and was part of the team that captured the first image of a black hole. This initiative provides resources for teachers and students, inviting everyone to contribute to the creation of a more enlightened, informed, inclusive, and diverse academic environment — essential characteristics for innovation and scientific advancement.

References

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