

# Celebrating the Achievements of Women Physicists

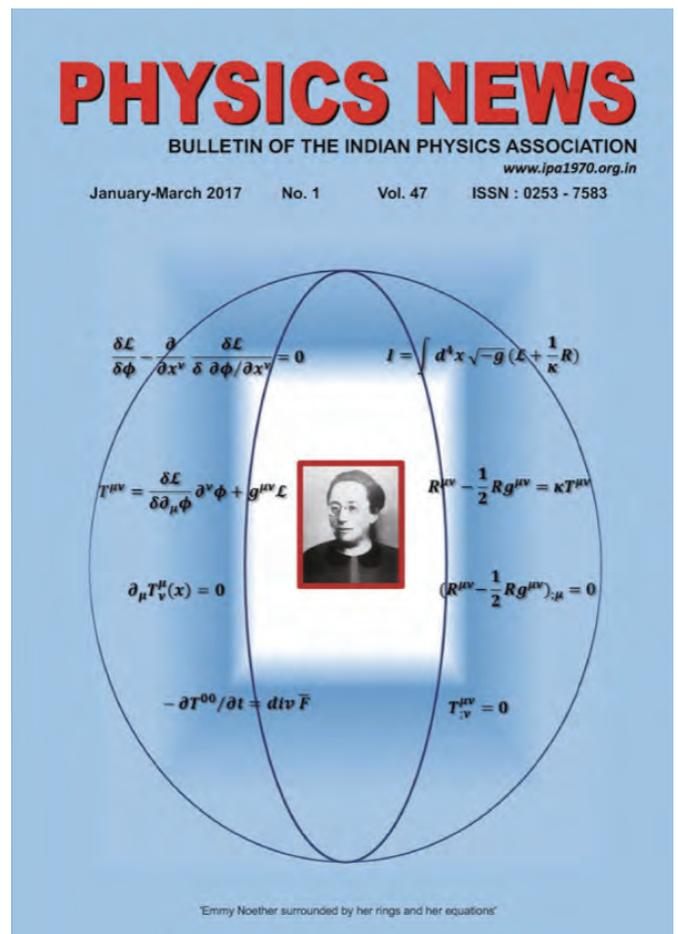
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The Indian Physics Association published a special issue of its bulletin *Physics News*, in March 2017 to coincide with International Womens' Day. While this bulletin had overviews on a variety of current topics as usual, it was special because all the authors of the articles were women physicists.

For *Physics News*, published by the Indian Physics Association, this was a first. The publication of this unique issue happened in parallel with another noteworthy event, viz., the constitution of a working group on Gender in Physics under the Indian Physics Association. The parallel events were not a coincidence.

Discussions in the year 2016 among a group of physicists who were concerned about the gender gap in science, resulted in the formation of this working group, as well as in the genesis of the idea of special editions of three different Indian science publications with an all-female authorship. The time of publication was chosen to mark the occasion of Womens' Day.

Thus, the research journal *Current Science* published by the Indian Academy of Sciences had a special section showcasing research [1] by mid- and early-career women scientists, with a preface written by physicists Sulabha Kulkarni and Neelima Gupte. The March issue of the science education magazine *Resonance* (also published by the Academy for an audience of undergraduate students and adult science buffs) had an all-women authorship [2]. This included the guest-editorship



**Fig.1:** The front cover of the special edition of *Physics News* in which all the articles were written by women physicists. The cover was themed on Emmy Noether, shown surrounded by her rings and her equations, and was designed by two of the guest editors B.Bambah and V. Nanal.

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(P. Shastri & S. Mazumdar-Leighton), all the science articles, which were mostly oriented towards the physical sciences, and all the magazine's normal special features, including the cartoon.

The last but not least in the trio was the special edition of *Physics News* [3]. This trio of special editions attracted a fair amount of media attention [4]. Indeed this was a first for all three publications.

The star of the *Physics News* issue was the mathematical physicist Emmy Noether, who graced the cover (see Fig.1), and whose life and contributions were described in the highlighted article by written by Rohini Godbole. Noether's contributions to physics are profound but students of physics are typically less familiar with her name compared to some other physicists such as Boyle or Rayleigh. Further, to quote from the guest editorial,

*“While the fraction of women among physics PhDs employed in Indian academia is approximately 30%, which is itself somewhat low, that fraction .... is not reflected ... in the proportion of women authors in Physics News, which has ranged from 0% to 10% since 2010....this issue will demonstrate that it is quite normal for women physicists to write overview articles for audiences such as that of Physics News.”*

Topics ranging from nano-structures to black holes, from neutrinos to gravitational waves and everything in between were covered by the eight science articles and two short 'research news' pieces in this special issue.

It is hoped that the readers of this issue of *Physics News* will gain inspiration from the role models, and the effort will add to those leading to a more diverse physics community.

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#### References

- [1] <http://www.currentscience.ac.in/php/feat.php?feature=Special%20Section:%20Women%20in%20Science%20-%20New%20Horizons%20in%20Research&featid=10114>
- [2] <http://www.ias.ac.in/listing/articles/reso/022/03>
- [3] [www.ipa1970.org.in/images/PN\\_JanMar17\\_Index.html](http://www.ipa1970.org.in/images/PN_JanMar17_Index.html)
- [4] <https://thewire.in/114701/resonance-women-current-science/>; <https://scroll.in/article/831460/for-the-first-time-threescience-journals-are-publishing-special-issues-centred-on-women-scientists>