

Editorial

We issue this third number with three articles. Three quality articles, like the ones we published before. However, still a relatively small number of them. The lack of articles in astronomy education, already discussed in some depth in the last Editorial, still remains. We experienced a slight increase in the number of submissions, likely a consequence of the *Latin-American Journal of Astronomy Education* (RELEA) beginning to be more widely known. However, the number of articles approved after the peer-review process is still small.

From this semester on we plan a more intense and wide effort for the disclosure of the Journal. In particular, we will present the poster "The First Two Years of the Latin-American Journal of Astronomy Education (RELEA)", at the SPS5 Session of the next meeting of the IAU (XXVIth General Assembly of the International Astronomical Union), to be held in Prague next August. In that meeting, and besides the presentation of the referred work, we will perform other actions to make the RELEA known worldwide among those working with astronomy education. We shall also present the Journal at several other meetings and other events, using a variety of communication channels. We hope that these actions can render a higher number of submissions and accepted articles in the mid-term.

We would like to stabilize the publication at two issues per year, with about five articles each, unless a nice surprising fact can show us the existence of a high-quality production to improve that figure, fact that we would embrace immediately. For this purpose we appeal again to the collaboration of the interested colleagues, not only to submit their papers to the Journal, but also to spread its existence and contents among other colleagues and within their professional places.

The articles of the present issue cover some widely different matters in Astronomy.

In the article *Astronomy at School – Measurements of the Earth-Moon distance*, Santiago Paolantonio and Olga I. Pintado discuss some observational techniques, applied as a test experience in more than twenty schools distributed in nine cities in Argentina. These techniques were devised to be applied at the high-school level and aim to attract the students to the sciences through astronomical issues and the performing of a fundamental measurement in the history of Astronomy, also including the necessary calculations. Modern resources in the technology of information and communications were employed to organize this didactical experience in a decentralized fashion, which in the author's opinions contributed for its success. Operational details were discussed, useful for those who wish to repeat the experience, devised to coordinate the several variables inherently present, for instance, the execution of the experience within the school year of the participant schools (usually already filled up with other priorities and requests), the most favorable epochs for the pretended measurements, the search of interested teachers through amateur astronomer associations and the coordination between the participants, among other things necessary for the smooth running of the project.

The work *Reviving Erathostenes*, by Paulo Cesar R. Pereira explores didactically the reproduction of the historical experiment by Erathostenes (II century b.C.) to determine the radius of the Earth. Using resources presently available in the technology of information and communications, besides some more traditional didactic resources like the use of an isopor ball for quantitative analyses, the author and collaborators perform a procedure to determine the Earth's circumference. Participants from four Brazilian cities and eight foreign cities were involved in this activity. One of the advantages of the proposed method is the possibility of using two arbitrary cities in the experiment, independently of their actual longitudes (given that their latitudes are different, although it became clear that the errors grow with decreasing distances). The coordination of this large collaboration network was the responsibility of the

Fundação Planetário da Cidade do Rio de Janeiro, working with other brazilian and european institutions. That was a wide scope interdisciplinary didactical experience, rich in diverse contents which can be applied from the late elementary grades to the undergraduate level. The experience is described and commented in detail, allowing it to be reproduced by the interested colleagues.

In *Resonances and Tides in Natural Satellite Systems*, Nelson Callegari Jr. discusses issues in celestial dynamics applied to the modeling and interpretation of Solar System phenomena that remain hitherto unexplained. It is also mentioned the issue of physics of resonances in extrasolar planetary systems. Other contemporary topics also discussed here include the dominance of active volcanos in Io and the possible existence of liquid oceans beneath the solid surface of Europa, a satellite considered in the specialized literature as a prime candidate to host elementary life forms. One of the main goals of this work is to show some important topics of Celestial Mechanics to the undergraduate level in hard sciences courses.

More information about the Journal and instructions for authors may be found at the address: www.iscafaculdades.com.br/relea. We remind that the articles may be written in Portuguese, Spanish or English.

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