

Editorial

The eighth number of the *Latin-American Journal of Astronomy Education (RELEA)* is the second of the International Astronomical Year. For the second consecutive year we achieved our goal of stabilizing the publication to two issues per year.

After a few years of existence of the RELEA, this goal has been achieved and maintained thanks to a divulgation effort started by the Editors, using direct contact, participation in events and email at once.

And yet, the number of submissions from Latin-American authors (particularly) is still small. We recall the need of collaboration from our readers to make the Journal known and submit papers for publication. The RELEA is growing, and with it the insertion and visibility in the area of the articles thereby published.

A further change – hoping to be the last one – in the electronic management of the RELEA has been made. The RELEA site was relocated and the new address is: <http://www.relea.ufscar.br>.

This is an URL address of the *Universidade Federal de São Carlos (UFSCar)*. The relocation of the RELEA site happened again because of operational needs. The hosting at the UFSCar server allowed the change. Among the main reasons for this change we can mention that one of the Editors (PSB) is now a Professor of the UFSCar, and Dr. Gustavo Rojas, also a Professor at the same institution and an active astrophysicist with interest in Astronomy Education, was appointed as Technical Editor. He has already participated in the launching of the present issue and will be responsible for the future editions and the Page layout.

It is important to emphasize again that the change in the hosting Server does not imply any change for the independent character of the RELEA from that institution or any other academic/professional one.

We take this opportunity to call the attention to the *Projeto CTS4: Astronomia – Guia Didático*, a bilingual (spanish/portuguese) guide directed to the teachers of elementary, middle and high school to observe the equinox. It has been published in the *Caderno 31* of the *Sociedade Brasileira para o Progresso da Ciência (SBPC) – Ensino de Astronomia* “Ação conjunta de observação do Equinócio de março”, coordinated by Lisbeth Cordani, with the collaboration of teachers and researchers from Argentina, Brazil and Uruguay. One of the general goals of this Project was precisely to tighten the bonds between researchers and teachers of these three countries. The full published text is available at http://www.sbpnet.org.br/site/arquivos/arquivo_256.pdf.

In the present number we feature five articles:

Inclusion of Astronomy Topics in an Innovative Approach of Informal Physics Teaching for High School Students, by Aline Tiara Mota, Iracema Ariel de Moraes Bonomini and Ricardo Meloni Martins Rosado. This article reports the details of planning, methodology, materials, evaluation and results of one extra-mural course offered to high school students at the *Universidade Federal de Itajubá*. Topics from several astronomical branches were covered, from Fundamental Astronomy to Modern Astrophysics. The results

allowed to continue the Project in a second improved course – with changes discussed in the text – developed from the suggestions received in the first experience.

The Practice of Research of a Basic Education Teacher Involving Mental Models of the Phases of the Moon and Eclipses, by Glória Pessôa Queiroz, Carlos Jubitipan Borges de Sousa and Maria Auxiliadora Delgado Machado. Here a collective work, integrating teachers from a city school in Rio de Janeiro to a university group of research in Physics Education, is discussed. This practice allowed a Science teacher (co-author of the paper) to incorporate research in his teaching activity. The article discusses the construction of the pedagogical setup of that teacher and the changes that occurred in his classes considering the mental models of the students concerning astronomical phenomena.

Proving the Orbits of the Galilean Moons through Astrophotography, by Gustavo Iachel. This is about an observational activity of the Galilean moons using amateur astrophotography techniques. By means of excerpts of the book *Sidereus Nuncius* (Sidereal Messenger), by Galileo Galilei, the article suggests a methodology for the observation of Jupiter and its natural satellites, and with the use of astrophotography, to analyze the field notes. In this way, the positions of those moons in the images can be compared with the graphs of their relative positions to discover their orbits.

Study of the Local Horizon, by Rosa M. Ros. This work deals with the study of the horizon as a fundamental concept for students to make their first observations at school. The proposal is to photograph the horizon (from a convenient location at school) and then construct a model containing the rotation axis, local meridian and celestial equator that allows the students to understand the daily and annual motion of the Sun and the motion of the celestial sphere. In addition, the construction of an equatorial solar clock is suggested, and with it the further construction of other models (horizontal and vertical).

Practical Astronomical Activities During Daytime, by Eric Jackson. This text presents activities developed in an investigation performed in New Zealand by a group of teachers and astronomers about some problems in Astronomy Education within a constructivist approach. They consist of daily astronomical activities that can be made while most of the students are at school. Working in a cooperative fashion, the students made observations of their own shadows and related them to the apparent motion of the Sun. Because their personal engagement in these activities, the students showed more interest to study the subject.

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

We welcome Dr. Gustavo Rojas to the RELEA Editorial Team. Our acknowledgements to the authors, the referees, and all those who in some way helped us to continue with this project, and in particular with the preparation of this issue.

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