

Editorial

This eighteenth number of Latin American Journal of Astronomy Education (RELEA) brings several reasons to celebrate.

The RELEA is completing 10 years of activities. For this occasion, we invited Prof. John Percy, former president of Commission 46 of the IAU, to write a text in which he addresses this anniversary. Prof. Percy kindly sent us the text: *Reflections on Ten Years of RELEA: Latin-American Journal of Astronomy Education*.

Another good news is that RELEA changed its domain to the *Open Journal System* (OJS), which should facilitate the process of submitting, editing and access to the articles.

We wish to extend special thanks to Mr. Walison Aparecido de Oliveira, recently graduated from the Library and Information Science career at the UFSCar, for his work of changing the domain of RELEA to the OJS, which required a lot of work from the page layout to the posting of all articles and files published during these ten years of the Journal.

Last October, the III National Education Symposium on Astronomy (III SNEA) was held at the Federal Technological University of Paraná (UFTPR) - Headquarters in the city of Curitiba, PR.

It brought together about 150 participants and 70 panels and 23 oral communications were presented. One lecture, three round tables and two working groups meeting research were also part of the programme. In addition, there were two courses for educators in astronomy, three courses and three workshops for teachers.

The Book of Abstracts of the papers presented can now be obtained at the address: <<http://www.sab-astro.org.br/Caderno-de-resumos>>. The Proceedings of the full papers and other documents are in preparation. One of the event's resolutions was the decision on the venue of the IV SNEA, scheduled to take place in Goiânia in 2016.

In this issue we have six articles:

Determining the shape of the orbit of Mars in the high school (Determinando a forma da órbita de Marte no ensino médio), by Carlos Maximiliano Dutra and Andressa Rossini Goulart. This work aims to supply the deficiency of practical activities related to the content of Kepler's Laws in the textbooks of Physics of the 1st year of high school. A practical activity of determining the orbit of Mars, applied to eighteen teachers of the Specialization Course in Science Education is presented.

Memories of astronomy education in Brazil: clippings from the discourses of interviewed researchers on the subject (Memórias da educação em astronomia no Brasil: recortes a partir das falas de pesquisadores entrevistados sobre o tema), by Gustavo Iachel and Roberto Nardi. This article presents a historical retrospective on the teaching of Astronomy in Brazil after 1973, based on the analysis of the speeches of researchers considered national references. The historical approach aimed at promoting an understanding the professional development contexts and understand the past in an attempt to solve current and future demands in the area.

Learning about the sky from the environment: an experience working along one year with students of elementary education (Aprendendo sobre o céu a partir do entorno: uma experiência de trabalho ao longo de um ano com alunos de ensino fundamental), by Marcos Daniel Longhini and Hanny Angeles Gomide. A survey of observation activities about the environment, analyzing the changes of temperature, rain, day length, size and aspect of the shadows of the moon by students is presented. The project was developed with 95 students of

the 6th year of a public school in Uberlândia / MG. The results showed the limited perception of students, which was enlarged in relation to the moon case and suggests to understand first how shadows are formed and then apply this concept in Astronomy. In conclusion, the process is an initial step in a process that should be encouraged for the following years of student training.

The reflective abstraction theory and the history of astronomy (A teoria da abstração reflexionante e a história da astronomia), by Roberta Chiesa Bartelmebs, João Alberto da Silva and João Batista Siqueira Harres. This work is a theoretical essay on some facts of the history of astronomy analyzed according to the theory of reflective abstraction developed by Jean Piaget and his collaborators. Its aim is to understand the reasons why different astronomers, from the same historical and cultural time, "saw" evidence so different about the same phenomena. One can then understand sciences as human constructions, conditioned to a time, beliefs and ways of understanding of each scientist.

Disciplines and professors of astronomy in undergraduate physics teachers formation courses in brazilian universities (Disciplinas e professores de astronomia nos cursos de licenciatura em física das universidades brasileiras), by Artur Justiniano Roberto Junior, Thiago Henrique Reis and Daniel dos Reis Germinaro. This study aimed to identify Astronomy courses in Physics Teacher degrees, addressing which are compulsory, optional or elective, their total working hours and the period in which they are offered. As a result, in only 15% of these courses there is a compulsory subject. Few teachers are affiliated to the SAB and their presence in the institutions does not imply the existence of compulsory subjects of Astronomy in the researched courses.

Different cultures in astronomy education and their meanings in the classroom (As diferentes culturas na educação em astronomia e seus significados em sala de aula), by Vicente Pereira de Barros and Daniel Fernando Bovolenta Ovigli. This study presents a reflection on the use of the History of Science in formal education and employment of cultural elements of ethnic groups in education in Astronomy. It was offered in an extension course for science teachers in the state of São Paulo and didactic contents analyzed on the basis of the Law 11,645/2008 and the mandatory approach of "History and Afro-Brazilian and Indigenous Culture" in the official program. Topics from History of Science were discussed and their relationship with the cosmogonies of Yoruba and Tupi people established.

More information about the Journal and instructions for authors listed in the address: www.relea.ufscar.br. Articles may be written in Portuguese, Spanish or English.

Special thanks to Mr. Walison Aparecido de Oliveira for his work editing the articles and the change in the domain of RELEA to the *Open Journal System*. We also thank the associate editors, authors, referees and all those who directly or indirectly helped us in continuing this initiative and, in particular, in the preparation of this edition.

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