

## **SUMMARY**

The monograph presents a review of education in the field of astronomy in Slovakia, since its inclusion to the education process within the subject of physics until present day. The aim of the author of the publication is to show not only the history of education in the field of astronomy, but also to interpret the present state of knowledge in the field based on the implemented research. The target group of the research is students at all levels of education, as well as teachers and respondents of various ages. The reason behind elaboration of this study is a fact that astronomy has disappeared from education process within the subject of physics at Slovak schools despite long tradition of astronomy education within former Czechoslovakia. A part of the publication involves a comparison of the current state of the scope and content of the astronomy education in selected countries. Knowledge of our students is assessed via standardised TOAST test (Test Of Astronomy STdandards) and compared with the knowledge of USA students. The study shows unfavourable level of knowledge about basic astronomy notions of our students. The reason behind the current state is, in author's opinion, an absence of astronomy education at Slovak schools.

On the basis of the performed research, the study presents effects of the matter on students' knowledge, as well as professional knowledge and pedagogical skills of the teachers to teach the subject. The study also points at negative effects of absence of formal astronomy education at informal astronomy education.

Given the shown level of astronomy knowledge of the sample of the respondents participating in the research, the author offers a solution – renewal of astronomy education within the subject of physics in synergy with the global trend of implementation of interactive astronomy computer programs. The author focuses at the possibility to use an interactive program Stellarium, which she has a rich experience with, supported by the implemented research at all levels of Slovak educational system. A part of the monograph also includes exercises with astronomy content, for which the use of interactive program Stellarium is suitable. It is inclusion of this program that can help to solve the situation in this field of education and to deepen the knowledge about effects and phenomena in the sky not only to students but also to general public.