# Activities of the magazine and web portal Urania directed to schools

Maciej Mikołajewski<sup>1.2.3</sup> and Krzysztof Czart<sup>2</sup>

1. Polish Astronomical Society, Bartycka 18, 00-716 Warszawa, Poland

2. Urania - Postępy Astronomii, Nicolaus Copernicus University, Gagarina 11, 87-100 Toruń, Poland

3. Centre for Astronomy, Nicolaus Copernicus University, Grudziądzka 5, 87–100 Toruń, Poland

The magazine and web portal Urania – Postępy Astronomii (www.urania.edu.pl) has been supporting schools, teachers, students and educational projects in various ways for many years. We present examples of activities and projects in this area in the years 2015-2017.

#### 1 Subscription for Schools

In the period of 2016-2017 we have continued the project Sponsored Subscription of Urania for School led by the Urania editorial office and Polish Astronomical Society with a financial support from the Ministry of Science and Higher Education. The project is that schools of various education level (primary, secondary), as well as school libraries, receive a subsidy to the subscription of Urania – Postępy Astronomii magazine (Urania). The subsidy is in amount of 50% of the regular subscription price. Thanks to this project, the school pays only 30 PLN for a yearly subscription<sup>1</sup>, and the Ministry finances the rest of costs. Moreover, the part of costs covered by the school, may be financed by a separate entity, for example by the parent board, sponsor of a school, company, local government or even a private person – if that occurs, the school library will be enriched by a popular science magazine about space without any costs for the school. Teachers may also participate in the project on equally favourable conditions (with the Ministry paying a half price of the subscription). One can apply in an easy way, you only need to fill in a short form on the website of Urania<sup>2</sup> in the section Sponsored subscrition for schools (Prenumerata sponsorowana dla szkół). More information can be found in a special issue of the magazine as shown in Fig. 1.

Over 250 schools participated in the project in the years 2016-2017, and since the beginning of the project we have reached a total of over 500 schools. According to questionnaires conducted among teachers at the end of 2017 (during the previous edition of the project), Urania is used on average by 4 teachers and 31 pupils in a single school. This allows to estimate the range of the project as about 2 thousand teachers and 15 thousand school students in the whole country.

#### 2 Contest of Our School Adventure with Astronomy

Schools which participate in the project of school subscription of Urania, might take part in a special contest *Our School Adventure with Astronomy (Nasza szkolna przy-goda z astronomią)*. The idea of this competition is to make a school to deliver a

 $<sup>^1{\</sup>rm The}$  price of school subscription for 2017/2018 school period is a bit higher: PLN 36.

<sup>&</sup>lt;sup>2</sup>www.urania.edu.pl



Fig. 1: Special pomotional issue of Urania – Postępy Astronomii magazine with sample materials for schools.

documentation of any astronomical activity of the whole school, a team or a group of students. Examples of such activities of children and youth are sky shows, regular observations, own research, lectures, articles, school magazines or websites dedicated to astronomy, organization of an astronomical picnic or astronomical festival, theatrical performance, popular science movie, searching for astronomical artefact in a neighbourhood, meeting with astronomers and similar activities. Acceptable forms of documentation are albums, multimedia presentations, movies, websites and similar.

10 schools participated in the contest during edition for a school year 2015/2016, and 16 schools a year earlier. They sent documentation of very interesting and various activities related to astronomy. The first place in 2015/2016 edition was awarded ex aequo to Szkoła Podstawowa nr 2 im. Mikołaja Kopernika in Brzeszcze and Zespół Szkół Miejskich nr 3 in Jasło. The first school prepared a fictionalized educational movie with a participation of the whole class, and the second school presented very diverse activities of a school astronomy club, from observations, lectures and tours, to a talk with astronauts from International Space Station. The prizes – astronomical equipment chosen by schools – were handed in person in the winning schools by the Editor in Chief of Urania magazine.

Until October 31th, 2017, schools could participate in the edition 2016/2017. Many prizes, including astronomical equipment, books and gadgets were prepared for the best schools, with the prize poll of PLN 10,000.

## 3 School sections in the magazine

Each issue of Urania journal, among many other materials, includes a few sections dedicated to schools, teachers and students. *Olympian's Section (Kącik olimpijczyka)* contains sample solutions of exercises from previous editions of the Astronomy Olympiad (Polish national olympiad on astronomy for school students). These solutions are prepared by finalists of the Olympiad. This is practically the only place where future Olympiad participants (and their teachers) can find solutions of the latest exercises from the Olympiad.

The second school section is named Young Researchers' (*Młodzi badacze*). In this place we publish articles prepared by school students, which present results of their own research, observations or participation in various educational projects.

We should also mention the section Astronomy in School (Astronomia w szkole) with advices and tips on the use of telescopes and other astronomical equipment. This section is particularly valuable because of the rising number of schools in Poland which are equipped in astronomical instruments.

## 4 Support for Astronomy Olympiad

For a few years Urania has actively participated in promotion of Astronomy Olympiad in Poland at the national level. For example, we have sent posters and invitations to participate in competitions to about 1700 schools. In our magazine we published tasks from the first stage of Astronomy Olympiad and, as mentioned above, in the *Olympian's Section (Kącik olimpijczyka)* we provided sample solutions for tasks from previous editions of the Olympiad.

## 5 Subscription for Talented Youth

As part of the project supported by the Ministry of Science and Higher Education, Urania funds every year free subscriptions of the magazine for finalists of the Astronomy Olympiad, OMSA, Astrolabium and other contests for children and youth. Additionally, 50 free subscriptions of Urania are given to the National Children Fund for their scholars.

## 6 Contact with Editors

E-mail: redakcja@urania.edu.pl, phone: +48 509 44 17 17.

Acknowledgements. The project Prenumerata sponsorowana czasopisma Urania - Postępy Astronomii dla szkół is financed from the funds of the Ministry of Science and Higher Education designated for dissemination of science under the agreement No. 886/P-DUN/2016.