

## **Jury Report**

### **ET Outreach Award 2020**

One of the current challenges in modern science education is connecting fast-paced science results, data and methodologies with the educational ecosystem. An approach is to use real and current research data and methodologies in educational settings. By using authentic science practices, educators can increase the motivation of students to learn, and also frame that learning, in the epistemology or knowledge structure of science. For that is essential that students and teachers become data literate, which includes planning, acquiring, managing, analysing, and inferring from data. Astronomy education should - like astronomy research - use data to describe the universe and answer questions with the help of data analysis tools and visualisations.

The jury has recognised this challenge in modern astronomy educational and public outreach and has awarded the (KHMW/De Zeeuw-Van Dishoeck Fonds) ET Outreach Award to **Eva Laplace** for her project **Tool for Understanding the Lives, Interiors, and Physics of Stars (TULIPS)**.

TULIPS tackles the educational challenge of using real research tools in the classroom by providing a research-level visualisation tool that makes stellar evolution theory accessible. TULIPS includes visualising the evolution, structure, and composition of stars, comparing various stellar structures, and visualising mixing processes and nuclear fusion.

TULIPS also includes a series of educational resources (like video tutorials) and will be in line with the National Dutch curriculum (VWO subject "E.Straling en materie"). The tool and educational resources materials will also be available in English, French and German.

The jury also commends the importance that this project gives to diversity and gender equity in astronomy research: TULIPS will highlight the contribution of women in astronomy by portraying women from diverse backgrounds in the video tutorials.

Today's individuals must learn to work and think with data at an early age, so they are ready for the data-driven society in which we all live. TULIPS contributes to this challenge.

*Prof. dr. P.J. (Paul) Groot, Professor of Astronomy Radboud University Nijmegen*  
*Dr. P.M. (Pedro) Rodrigues Dos Santos Russo, Assistant Professor of Astronomy & Society at Leiden Observatory and the department of Science Communication & Society Leiden University*

The jury meeting took place 29 September 2020, was chaired by Drs. E.M.W.A. (Els) van Odijk, director KHMW, and also attended by Prof. dr. A.P. (Ad) IJzerman, Secretary of Natural Sciences and Drs. S. (Saskia) van Manen, Secretary (minutes).