

# Students work like astroparticle physicists with Cosmic@Web

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Cosmic@Web is an online learning resource developed at DESY Zeuthen, Germany as part of the outreach activities in the framework of Netzwerk Teilchenwelt. Via Cosmic@Web, high school and university students can access data from astroparticle physics experiments and experience the workflow of scientific research in this field by pursuing their own or suggested research questions. Data from various experiments located in different areas of the world can be used to study cosmic weather effects and muon properties. The analysis can be performed without any coding experience. The graphical interface allows to visualize data in several plot types and offers possibilities of data fitting as well as data reduction and corrections.

So far Cosmic@Web has been used by German high school students during internships at research institutes like DESY, for a research component as part of their high school degree as well as within projects in software development and coding.

This talk will present examples of workflow with Cosmic@Web, particularly linking aspects of astroparticle physics –especially the measurement of cosmic muons –with other established contents of high school physics curricula. Furthermore, the acceptance of the tool by students and teachers as well as their feedback during and after its introduction in dedicated training workshops will be discussed.

## Keywords

high school, data analysis, experiment, learning ressource, muons, Cosmic@Web, Netzwerk Teilchenwelt

## Collaboration

other (fill field below)

## other Collaboration

Netzwerk Teilchenwelt

## Subcategory

Outreach and Education

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