



space ship

THE MAKER-SPACE FOR ASTRONOMY

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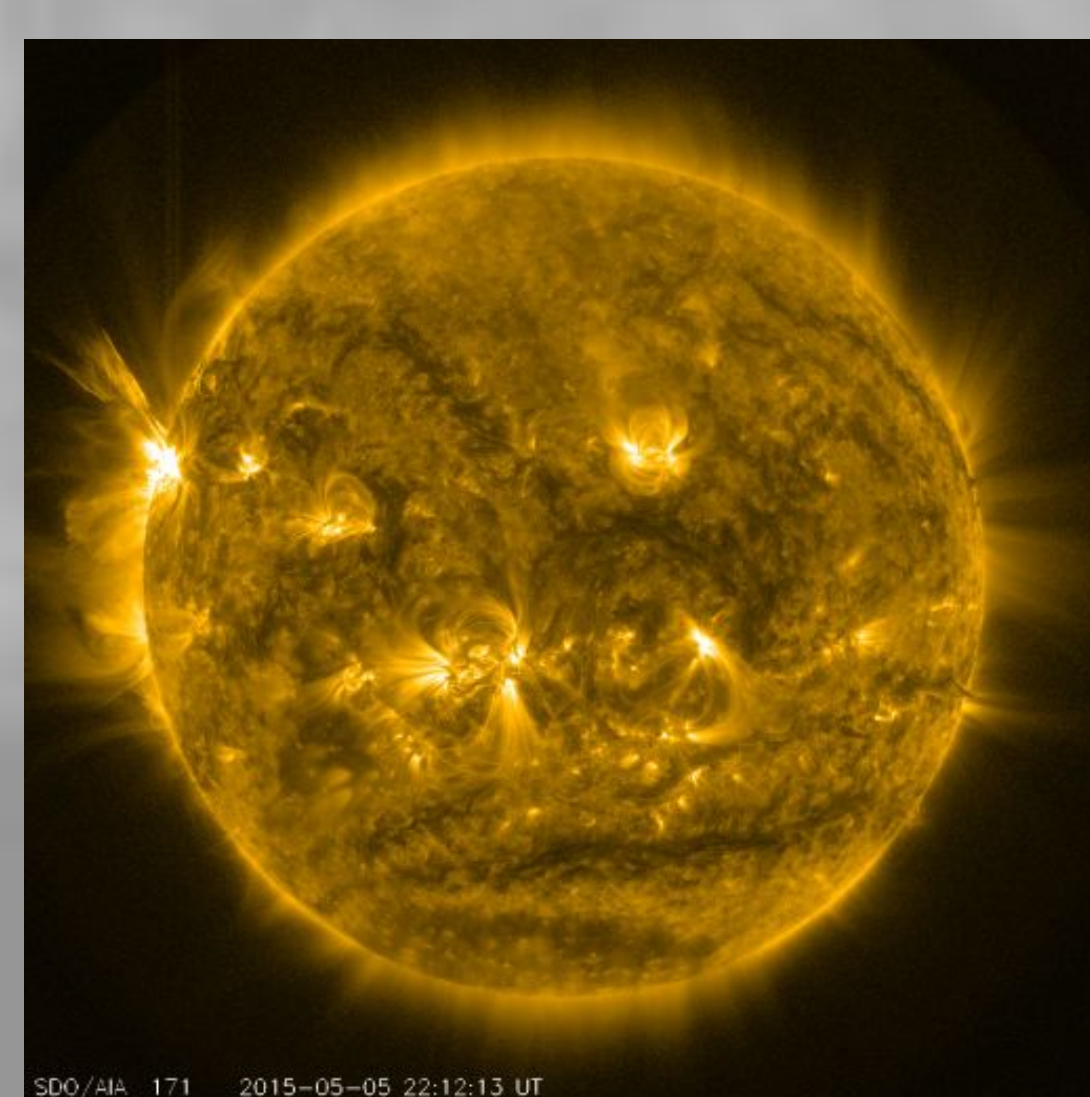
Introduction: Spaceship is a place for pursuing astronomy as a hobby just like music or sports. Focusing on user interests, it offers four main engagement formats: 'Open Space', 'Science Cafés', 'Workshops' and 'Projects'. Citizens have the opportunity to participate in science at various levels of complexity.

Approach: We promote a data-driven approach to astronomy. We introduce users to open access resources in combination with tinkering activities. User interests are key. Methodologies are influenced by the maker-movement and include strategies for informal learning in science centers.

Results: Since its opening in September 2016, Spaceship has welcomed visitors of all ages and backgrounds, many of which never visited a science center or engaged in science before. They came with their own questions, were exposed to a wide variety of astronomy data resources and ways of using them.

MAKING ASTRONOMY DATA ACCESSIBLE FOR A BROAD RANGE OF USERS

Example: workshop introducing the citizen science project SunSpotter.org



The active sun, SDO/AIA171



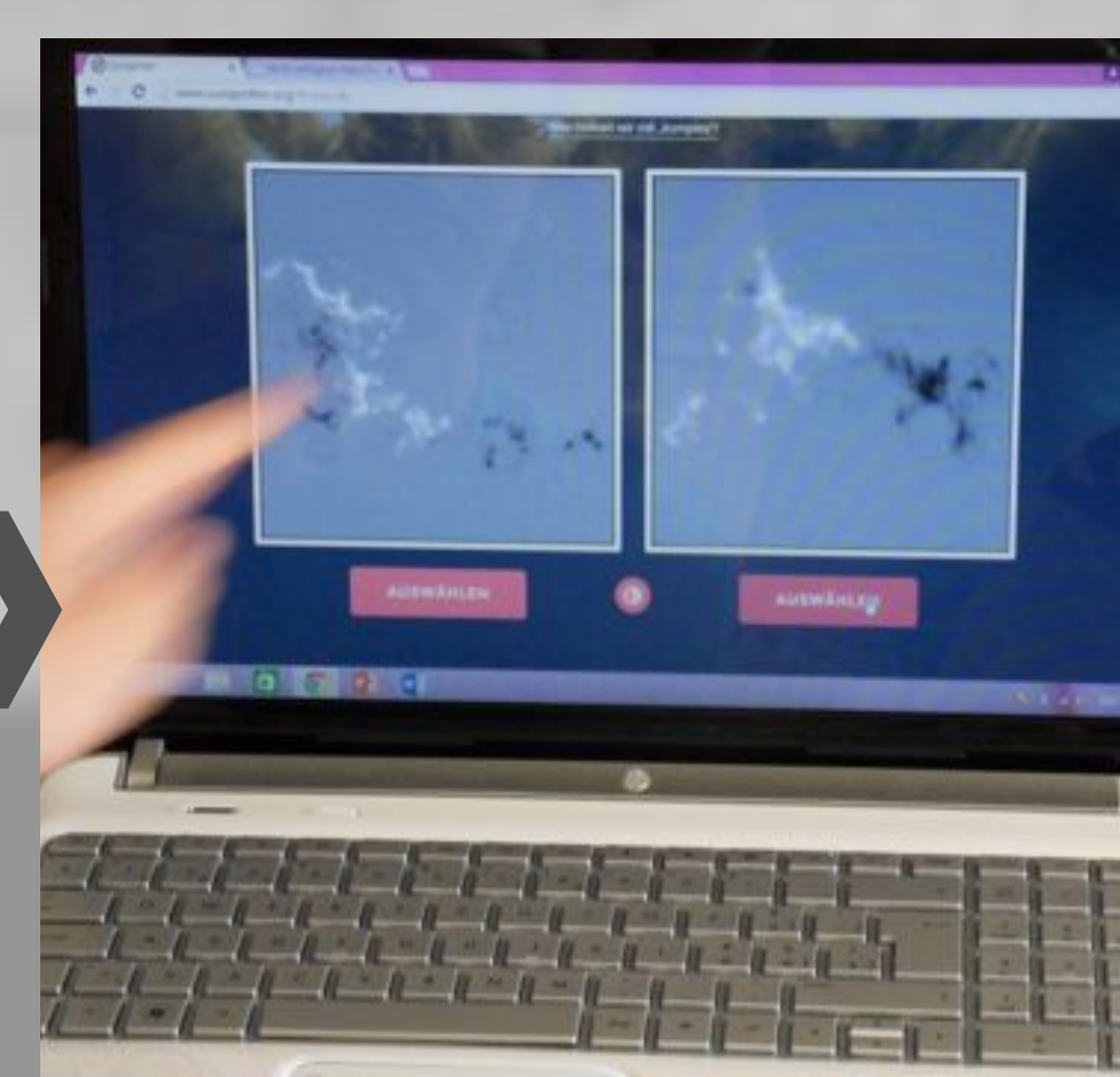
Making magnetic fields visible



Comparing magnetograms and UV images



Analysing magnetograms: explosive or not?



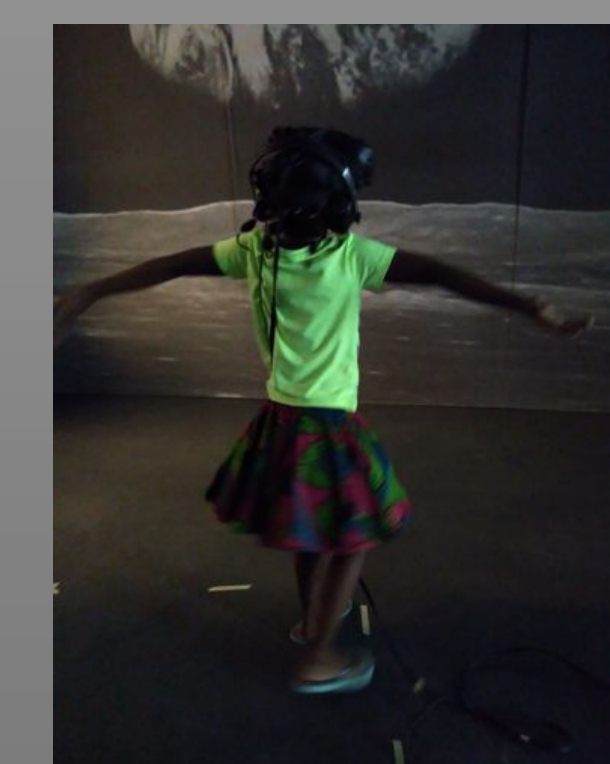
Sorting magnetograms by complexity

Challenge: A wealth of data resources are available for free, ready to be used by the public. However, most people are unaware of this. Some are reluctant to visit science places, considering science too complicated. A bridge is needed, identifying links to potential users, pointing them to resources of interest and introducing ways of using them.

What we do to make data accessible: We offer activities from extremely simple to quite complex, some tailored to individual users. We experiment with new activities based on insights from discussions with participants. Examples:

- Introductions to WorldWideTelescope, NASA Eyes, ESA Sky and other tools
- Development of VR astronomy experiences for first-time users
- Introductions to Zooniverse citizen science projects (see example above)
- Image- and video-workshops with helioviewer.org and JHelioviewer
- Co-operative projects with artists using data from mission websites
- Development of educational materials for research-project outreach
- Opportunities to engage in more advanced science projects

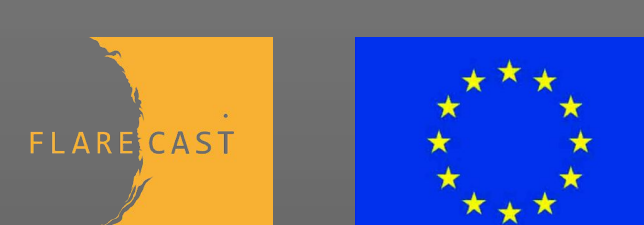
Some impressions >



Acknowledgements

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Spaceship – the Maker-Space for Astronomy closely co-operates with the University of Applied Sciences and Arts Northwestern Switzerland FHNW



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