



# UZH Space Hub Newsletter



Dear UZH Space Hub Community

In this newsletter, you can find many interesting news and space-related opportunities and events.

Have a nice read,

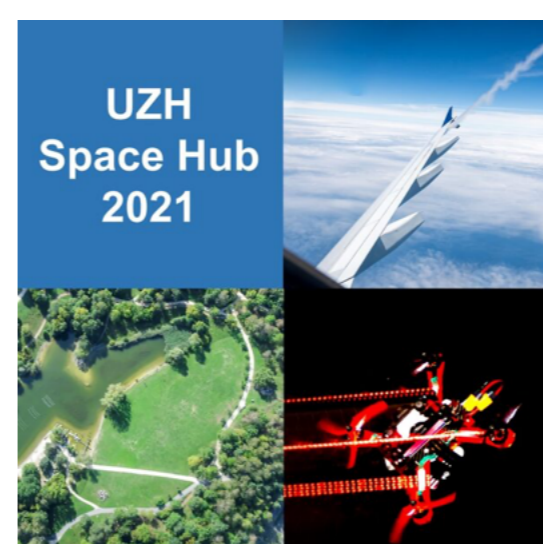
UZH Space Hub Team

## News

### Successful research campaigns, increased international visibility and outreach: brief review of UZH Space Hub in 2021

2021 has been a successful and active year for the UZH Space Hub and its members, combined with a strong increase in international visibility: According to Space Tec Analytics, UZH Space Hub belongs to the 28 globally significant space hubs – which is impressive when considering that operations had started in 2018.

[Read more](#)



### Studying back pain on the ISS

Congratulations to our UZH Space Hub member Dr. Jaap Swanenburg (in the picture with Dr. Anke Langenfeld) and Prof. Dr. Marcel Egli who started their pre- and post-flight experiments with astronauts on long-duration missions on the International Space Station (ISS). The first pre-mission measurements were successfully conducted in Cologne and Houston addressing back pain and the increased risk of intervertebral disc herniation in astronauts. Further pre- and post-mission measurements are still to come.

The project aims to monitor spinal motion patterns and determine the motor control of the spine under various loading conditions pre- and post-space mission. Furthermore, the impact of microgravity exposure on intervertebral discs will be analyzed.



### Scientists, including UZH Space Hub member Robert Feldmann, discover how galaxies can exist without dark matter

Using computer simulations, an international team of researchers found how galaxies without dark matter - matter that we can't see directly - could form. This happens when massive galaxies strip smaller galaxies of their dark matter while leaving the galaxies in stable state.

Prof. Robert Feldmann from the University of Zurich, Institute for Computational Science, ran the simulation on which this current study is based.

[Read more](#)

## Events

### Workshop on potential 18th Sustainable Development Goal that is related to Space

How can we reach for the stars in a sustainable way? How can we link the issues of sustainable space use with the environmental debate here on Earth? This workshop will discuss how an 18th Sustainable Development Goal for our space environment could look like. Time and place: Friday, 4 March 2pm-5:30pm (CET) via Zoom. No registration is required, [find more information and join here](#).

Also, stay up to date regarding the whole project by joining the projects mailing list [here](#).



## Opportunities



### A new MOOC online course “New Space Economy” with UZH contribution is launching its learners into the New Space age.

The space industry is a fast-growing market, boosted by the commercialization of this historically institutional sector. This new course gives a detailed overview of the new space economy for entrepreneurs, students, career jumpers, or anyone who likes to discover the space sector.

Three talks of the EPFL course are given by the UZH Space Hub members Claudia Rösli, Valentina Tamburello and Cora Thiel.

Watch the trailer and participate here [New Space Economy | edX](#)

[Register](#)

### ESA Academy's CubeSat Summer School 2022

The ESA's Education Office offers university students with engineering and physics backgrounds the possibility to attend the ESA Academy's CubeSat Summer School 2022. The Summer School will take place at ESEC-Galaxia (Transinne, Belgium) for four weeks from August 8 to September 2, 2022. Deadline for applications: 23:59 CET, March 21, 2022. Credits: ESA



[Read more](#)

### Online Space Debris Training Course 2022

Are you a Master or PhD student interested in Space Debris? Learn more in this online course between May 16 and 25, 2022, offered in collaboration by the ESA's Education Office and the ESA's Space Debris Office. You will get an introduction to the concept of space debris, why it is necessary to address this problem, and how the mitigation policies set by ESA apply to missions. Deadline for application is April 11, 2022.

[Read more](#)

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