



"You are on a great trajectory for the future"

At the end of January, more than 150 PlanetS members met online for the General Assembly. In more than 20 presentations, we learned via Zoom what a wealth of research projects and other important tasks are underway at PlanetS.



Catherine Cesarsky Picture: Screenshot Zoom

This impression was confirmed in the statements of the Advisory Board. Catherine Cesarsky praised the very good presentations and said that we are "on a good road to SIPS".



Brian Schmitt Picture: Screenshot Zoom

Brian Schmitt was "impressed by the quality of the talks". He said: "When we started we knew some people that were well known," he said. „Now, there is a real change of tone." He was pleased that so many young researchers are stepping forward to present their work.. „This is the competence of the next generation of world leading scientists.“ And he added: „You are on a great trajectory for the future. Well done!"



Michel Mayor Picture: Screenshot Zoom

Finally, Michel Mayor underscored what an impressive transformation NCCR PlanetS has undergone since its launch in 2014. There is a huge set of positive networking between Bern, Geneva and Zurich. There was only one thing he missed: "I miss the direct contact."

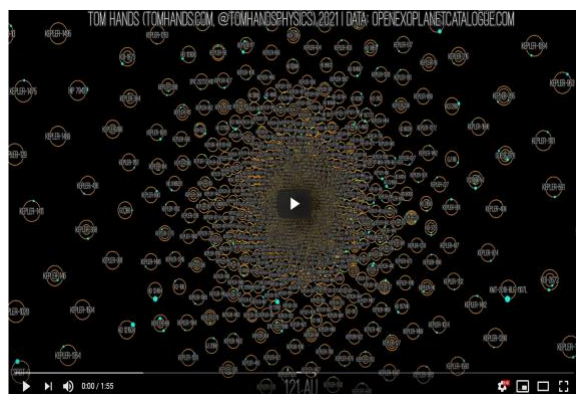
In this respect, the commitment of the PlanetS Board was a ray of hope: Money will be made available in phase 3 so that the General Assembly can continue to take place, if the pandemic permits.



Group picture of the participants of the General Assembly 2021.

Picture: Screenshot Zoom

Experience an exoplanet fly-by

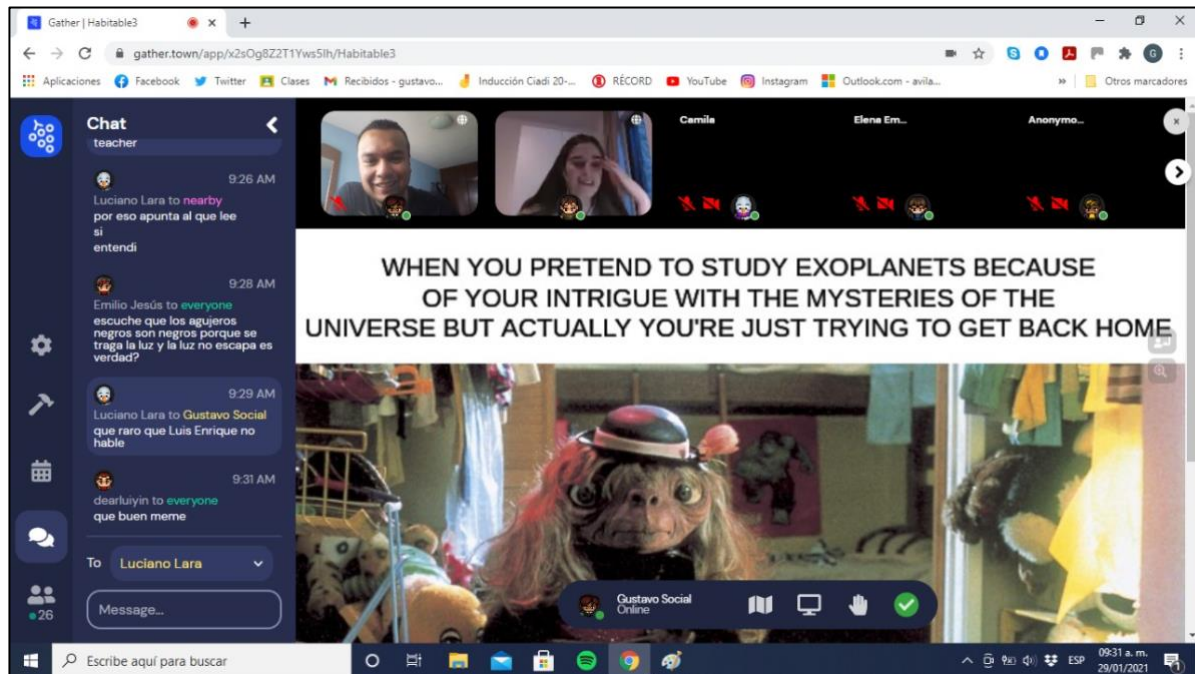


Fly through the exoplanets. (Screenshot)

Tom Hands produced a zoom through of 4119 exoplanets around 3050 single stars, starting from those on the widest orbits that take thousands of years to complete, zooming all the way into planets that orbit their host stars in days or even hours. 4K or at least 1440p recommended! You can find the animation at <https://youtu.be/zuDDs8rKjt4>

Tom Hands is currently a postdoctoral researcher at the University of Zurich and associate member of the NCCR PlanetS.

Around 60 students at the Massive Exoplanet Meme Event



At the beginning of February 2021 Marit Mol Lous organized a successful outreach event with a few friends that they would like to expand on. It was called the Massive Exoplanet Meme Event which was promoted on twitter.

There were around 60 people in the public event, they looked at meme's about exoplanets in a

digital gallery where you could walk around and encounter other visitors.

Simultaneously to this 'public' event they also had a separate excursion of a highschool in Mexico. There were over 50 students between the ages 12 and 17, who got a tour through the gallery. Two astronomy PhD students – Spanish speaking in this

case – were the tour guides to the students. They talked them through some of the meme's and explained a few basic principles in astrophysics. The tour guides also talked about their personal experience studying astronomy.

The organizers think this school visit was very successful and they got a very positive response from the teachers, so they are thinking about doing this more often. Now that they have build the platform and collected meme's that are both funny and educational they have already done the majority of the work.



TESS Science Conference II August 2nd-6th, 2021



The abstract submission for the TESS Science Conference II ([@tsc.mit.edu/2021](http://tsc.mit.edu/2021), @TessSciCon2) is now open!

The conference will take place August 2nd-6th, 2021 and will be dedicated to all aspects of the TESS mission. This includes data analysis of 20-second and 2-minute pixel stamps and 10-minute and 30-minute full frame images, and the wide range of science done with TESS data -- including but not limited to Solar System science, exoplanets, asteroseismology, binary stars, variable stars, galactic astronomy, transients, supernovae, and AGNs.

The conference is being designed to run entirely online and we will have a fully supported online component, even if travel is possible for some participants. A final decision on whether the conference will have any in-person activities is expected to be made by the end of March at the latest.

The deadline for splinter session requests is 11:59pm PST March 26th.

The splinter session submission form is available at:

www.tinyurl.com/TSC2SplinterSubmission

Deadline for all talk and poster abstracts: 11:59pm PST April 30th.

The abstract submission forms is available at:

www.tinyurl.com/TSC2AbstractSubmission

Conference Registration is expected to open in mid-March, exact date TBD.

For any questions please email: tsc2@mit.edu

ETH webinar about diversity and inclusion in teaching



There was an ETH webinar last week about diversity and inclusion in teaching, very interesting small things that one can include (or avoid) in one's teaching. You can access the recording of the webinar [online](#).

The slides can be found here: <https://blogs.ethz.ch/refreshteaching/virtual-hs-2020-dates-topics/diversity-and-inclusion-in-teaching-and-learning>



IAU Early Career Astronomer (ECA) Online Discourse Series



The IAU Early Career Astronomer (ECA) Online Discourse Series is going to kick off for 2021 in just a few weeks! This virtual series contains career discussions in academia and industry, multifaceted science highlights, professional development trainings, and

more. All events are tailored to early career astronomers. The full descriptions of the coming four events are provided in the attachment. Two are held on EMEA-friendly and two on APAC-friendly time zones (recordings will be made).

Thursday March 25th, 2021, 16:00-17:00 UTC / 17:00-18:00 CET

"Satellite Mega-Constellations and Astronomy: the phantom menace, or a new hope?"

Dr. Olivier Hainaut (ESO)

Thursday April 29th, 2021, 9:00 AM - 10:00 AM AEST

"Quantifying and Managing Uncertainty"

Dr. Richard Scalzo (DARE, University of Sydney)

Thursday May 27th, 2021: 9:00 AM - 10:00 AM AEST

"Exploring the Universe Without Costing the Earth"

Dr. Natasha Hurley-Walker (Curtin University)

Participation is free. All you have to do is fill out the event registration form no later than 24h (UTC) in advance of the subsequent event:

<https://forms.gle/sWoB7uxT2sWKEJQg8>

The discourses will be made available to you via Zoom and Youtube. You will receive a confirmation upon registration directly from Google Forms with the connection information.

Recordings of these upcoming events will be available alongside select past events on our Youtube channel: https://www.youtube.com/channel/UCZQsB5LY2Tv_tj9ddVdnPuw

Job opportunities

Phd position in planetary science – cosmic dust / heliosphere:

www.jobs.ethz.ch/job/view/JOPG_ethz_Pw3MvM3kDRZTXpC26H

Postdoc position in planetary science – cosmic dust / heliosphere:

www.jobs.ethz.ch/job/view/JOPG_ethz_ryjk2Yj2JM3MH3WG3w



20'000th image taken by CaSSIS

On December 13th, 2020 CaSSIS took its 20,000th image of Mars! The milestone image features a segment of a wrinkle ridge in Solis Dorsum, a prominent system of wrinkle ridges in the vast Tharsis volcanic plateau. Wrinkle ridges are linear rises in topography that form on the surfaces of planets due to tectonic faulting. The tectonic

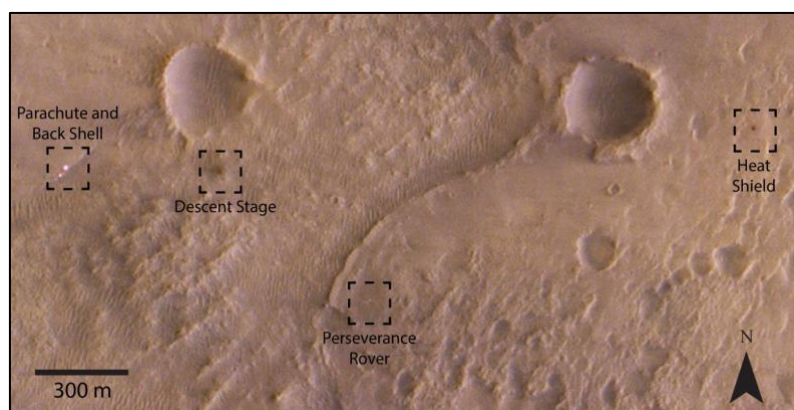
stresses responsible for the faulting are caused by the contraction of the lithosphere due to the internal cooling of the planet. The study of Martian wrinkle ridges, their distribution, and their orientation, can reveal many details about the complex geodynamic history of Mars. Image ID: MY35_013636_206_0. ESA/Roscosmos/CaSSIS.



A few days ago the ESA-Roscosmos Trace Gas Orbiter has spotted NASA's Mars 2020 Perseverance rover, along with its parachute and back shell, heat shield and descent stage, in the Jezero Crater region of Mars. The images were captured with the orbiter's CaSSIS camera on 23 February 2021. The components are labelled and are seen as dark or bright pixels. In this image,

the colours have been adjusted to resemble the typical red colour of Mars, as would be seen by a

human observer. Credit: ESA/Roscosmos/CaSSIS; acknowledgement A. Valantinas



"What Stars Are Made Of – The Life of Cecilia Payne-Gaposchkin"

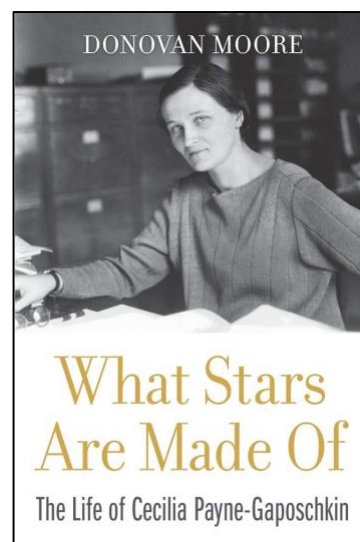
I am not usually a lover of biographies. But the book "What Stars Are Made Of – The Life of Cecilia Payne-Gaposchkin" by Donovan Moore turned out to be an absolute stroke of luck.

It tells the life of the astronomer Cecilia Payne-Gaposchkin, who discovered her desire for research at a young age and from then on did not let herself be diverted from her path. This was not at all easy, because her career began at a time when women were tolerated in research as assistants at best. Undeterred, she continued on her path, even though new obstacles were constantly being placed in her way. It was thanks to her persistence and her will to explore that she discovered what stars are made of.

The book appealed to me as a reader on several levels. On the one hand, Cecilia Payne-Gaposchkin's life is vividly described, peppered with many quotes from various companions.

On the other hand, the book painfully shows how absurd and dogged the male-dictated research world was until well into the 20th century, long denying women the same opportunities, even if they were as brilliant as Cecilia Payne-Gaposchkin.

This book tells a story that is unknown to most. The facts about it seem to be well researched. And the book is excellently written. It opens men's eyes to issues of equality while offering itself to women as a source of inspiration to not be stopped on their path to success.



I enjoyed "What Stars Are Made Of" in audio book form. And it is highly recommended that you choose the audio book. Because the narrator, Elizabeth Wiley, puts the icing on the cake with her British English and her characterization of the various people featured in the book.

Guido Schwarz

Publisher: Harvard University Press; Illustrated Edition (3 March 2020)
ISBN-10 : 0674237374; ISBN-13 : 978-0674237377

Atlas of Meteorites online available for free

Anna Musolino and Luigi Folco of the University of Pisa have issued an "Atlas of Meteorites in Thin Section". It is a collection of optical microscopic images of 45 polished thin sections from 45 meteorites representative

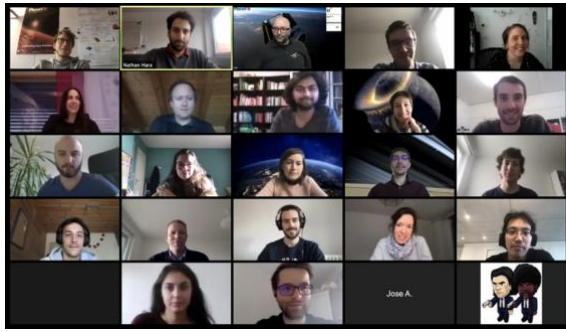
of a variety of different types of stony meteorites, including chondrites, primitive and differentiated achondrites, and planetary meteorites from primitive and evolved bodies in the solar system. The catalogue is an educational

tool for students interested in the petrography and petrology of planetary materials, particularly those attending the courses of Planetary Geology and Cosmochemistry.

The atlas can be downloaded online for free as a PDF:

<http://repositories.dst.unipi.it/index.php/meteoriti-in-sezione-sottile>

Workshop on Planetary System Architecture



PlanetS Domain 2 organized a workshop on Planetary System Architecture that was held on 16 November 2020. The idea of this workshop

was to gather the in-house Swiss/NCCR researchers for stimulating talks and lively discussion on the multi-faceted aspects of planetary system architecture. The theme of this workshop is motivated by tantalizing questions like:

- How would you define the architecture of planetary system?
- What are the physical processes shaping architecture?
- What does architecture of an observed system/observed systems as a whole tell us on the formation and evolution of exoplanets?

PhD defense of Louise Dyregaard Nielsen



Louise Dyregaard Nielsen
Picture credit: LDN

Louise Dyregaard Nielsen, l'Observatoire Astronomique de l'Université de Genève, defended her PhD titled 'Density of Exoplanets' on 1 February 2021. It was done corona-style, via Zoom from her living room, but was still a very joyous experience.

Louise Dyregaard Nielsen will continue as a SNF fellow (Early Postdoc. Mobility) in Oxford working with Suzanne Aigrain on

radial velocities of planets transiting young, active stars.

Upcoming PhD defense of Oliver Schib



Oliver Schib
Picture credit: NCCR PlanetS

Oliver Schib will have his PhD defense titled "Planet Formation via Gravitational Instability". It will take place on Friday, 12th of March at 15:00 h. Current regulations only allow for the committee to be present. Everyone else can participate via zoom:

<https://unibe-ch.zoom.us/j/6297919694>

Newsletter TP

The Technology Platform of PlanetS publishes a newsletter: <http://nccr-planets.ch/platforms/technology-transfer/newsletter-techs>

Recently, they have published the 4th issue: do you think we could advertise it also through other communication channels? For example Facebook? For your information, the external company identified for the 4th issue was Officina Stallare who advertised it here:

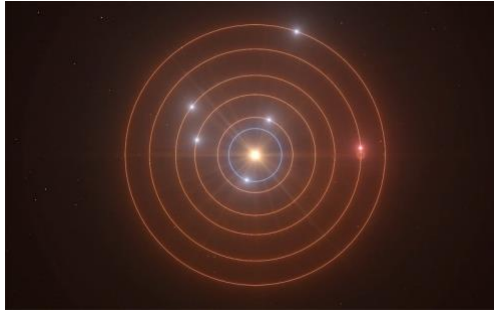
<https://www.linkedin.com/feed/update/urn:li:activity:6763473187914219520>



BEST OF

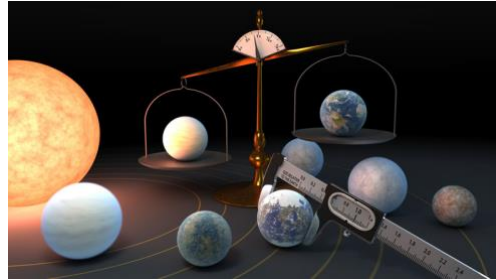
media releases and articles from PlanetS

CHEOPS finds unique planetary system



Press release of the [University of Bern](https://www.unibe.ch/)
Also watch the interview with Adrien Leleu and Yann Alibert:
<https://youtu.be/cjMmTIXK8Cc>

TRAPPIST-1's 7 rocky planets may be made of similar stuff



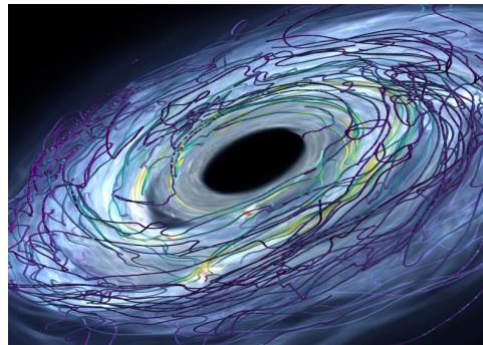
Press release of the [University of Bern](https://www.unibe.ch/)

How our planets were formed



Article from the [ETH Zurich](https://www.ethz.ch/).

A new way of forming planets



Press release of the [University of Zurich](https://www.unizh.ch/)

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