

Symposium «Perspectives in Space Science», 29 June 2019

Speech of the Rector Prof. Dr. Christian Leumann

The spoken word applies

Ladies and gentlemen,
dear guests

It is a pleasure for me to specifically welcome in order of appearance:

- Brian Schmidt, Nobel Laureate 2011, Australian National University
- Xavier Barcons, Director General European Southern Observatory ESO
- Pascale Ehrenfreund, Chair of The German Aerospace Center's Executive Board (DLR) Board
- Günther Hasinger, Director of Science of the European Space Agency ESA
- Thomas Zurbuchen, NASA Associate Administrator for the Science Mission Directorate
- Eckhard Elsen, director of research and computing at CERN
- Ewine van Dishoeck, President of the International Astronomical Union IAU

It does not happen every day that Nobel prize winners, director generals and directors of science from ESO, ESA and NASA, as well as several A-list members of worldwide Space Science come to visit Bern. That we may host today's scientific summit on the future of space science here at the University of Bern is a great honor and makes me feel very proud.

The Apollo 11 mission in 1969 was a quantum leap for the international space science and the first absolute highlight for space science at the University of Bern, This is due to the Solar Wind Composition Experiment of Prof. Johannes Geiss that flew with it.

Since that time, we have contributed with scientific experiments to 25 missions to the higher atmosphere and ionosphere (1967-1993) and to 9 balloon flights into the stratosphere (1991-2008). In addition, more than 30 instruments were on board of different space vessels.

The headlines in recent times have been caused in particular by the Rosetta Mission with the mass spectrometer ROSINA decoding the atmosphere of the comete Tschuriumov-Gerasimenko, the CASSIS camera with high resolution 3D images from Mars, as well as the satellite CHEOPS the construction of which has been coordinated here in Bern and that will be launched later this year to help guiding exoplanet research.

Space science is and has always been highly international. This requires strong scientific networks on the national and international level that in turn requires effective coordination. On the international level this is clearly done by all the organizations represented in today's program, and we are very proud to be part of this network. On the national level, the Swiss Space Office and the Swiss National Science Foundation plays a critical role in these efforts. In this context we are happy to host, together with the University of Geneva the NCCR PlanetS, focusing on research on exoplanets. This NCCR also includes activities of the University of Zürich as well as the two ETHs in Zürich and Lausanne.

The broader public often looks at Space Science as a horrendously expensive science without societal impact. We all here know that this is wrong given its role as an enabler science for many of today's technologies in data management, communication, material science and environmental research, to name only a few of them. Besides this, there is a substantial academic interest going far beyond space science in its strictest sense. With this background, we have set up the interdisciplinary research center for Space and Habitability at the University of Bern. Collecting expertise from various faculties of our comprehensive university we address questions on the definition of life and the impact of finding extraterrestrial life from the point of view of other scientific disciplines, including theology and philosophy.

If we look back to 1969, and if we watch documentaries or speak with witnesses of that period – such as Charlie Duke, who was here last weekend for the world premiere of the movie Lunar Tribute – we realize that the moon landing would not have happened without the unconditional passion of all involved persons – from the technicians and engineers in the background, to the young

students and post-docs and their advisors, to each and everyone in the mission controls up to the astronauts out in space. The moon landing is an example of technical brilliance, of research and its application, as well as of intercultural and interdisciplinary communication at its highest level.

We are here today to talk about current and future space missions and scientific projects. To be successful such missions need dedicated people on all levels, sharing the same passion for space science as their predecessors, 50 years ago. The Universities with their scientific mentors certainly have to play an important role in this by motivating and instructing students and young academics. So they will be in the focus today.

Besides this, we need the support and the interest across all of society, all the way from politicians to the simple taxpayer.

To make the 50th anniversary of the moon landing an emotional event for everyone we will start today with celebrations at various locations in the center of the city. These will last until Sunday. There will be, for example, a 4D multimedia show, letting visitors experience a take-off in virtual reality, flying from the Bundesplatz past the moon and out in the space. There will also be concerts and a big party to inspire all kind of junior and senior citizens for science, and to let them be part of one of its biggest successes in human history.