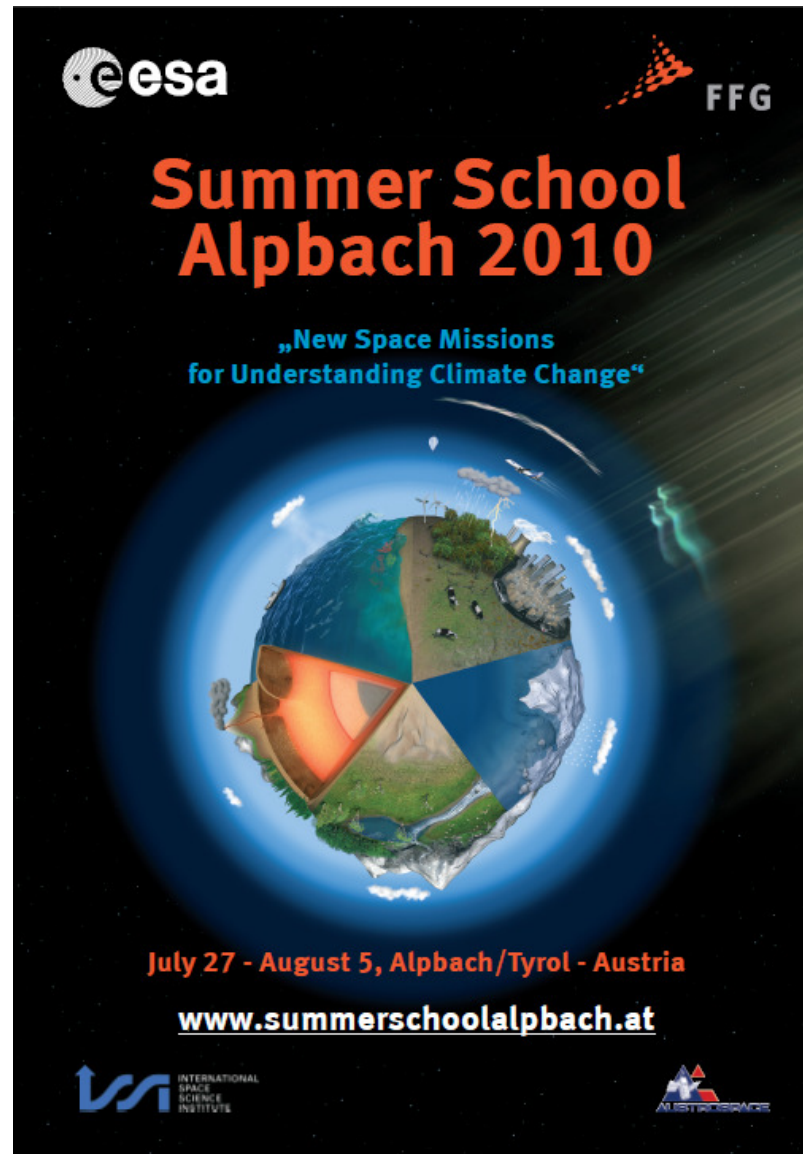


Student Year Book



esa **FFG**

Summer School Alpbach 2010

„New Space Missions
for Understanding Climate Change“

July 27 - August 5, Alpbach/Tyrol - Austria

www.summerschoolalpbach.at

ISI INTERNATIONAL SPACE SCIENCE INSTITUTE

AUSTROSPACE

The Team of 2010



Lara Aleluia Reis

Luxembourg

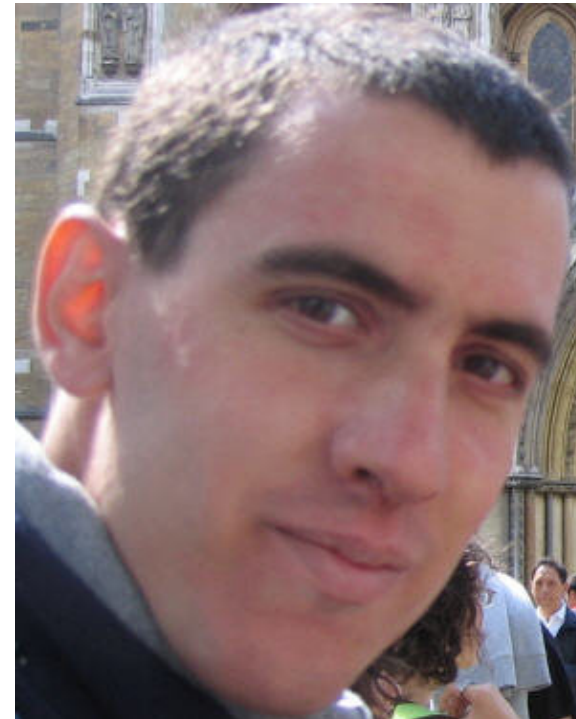
- BSc and MS Environmental Engineering (MS on Management and Environmental systems), in the Faculty of Science and Engineering of the New University of Lisbon
- Currently doing a PhD in Air Quality modelling, in University of Luxembourg/ CRP Henri Tudor/ Aristotle University of Greece
- interested in Air pollution, atmospheric Sciences, climate change and modelling in general.



Josef Aulinas

Spain

- PhD student on computer vision and robotics at the University of Girona
- Working on underwater simultaneous localization and mapping, as part of a project supported by the Spanish Ministry of Science, named “Computer vision systems for submarine cartography and aquaculture”
- Research interests:
 - Robotics and computer vision
 - Renewable energies and sustainability
 - Earth observation and space exploration



Quentin Baghi

France

- Undergraduate student in Aerospace Engineering School (Institut Supérieur de l'Aéronautique et de l'Espace - SUPAERO, France)
- Special interests in Cosmology and Astrophysics



Michael Bergmann

Austria

- Studies of electrical engineering with focus on IT at Graz University of Technology
- After graduation in 2008 employed at the Institute of Communication Networks and Satellite Communications
- PhD in the field of satellite channel coding, parameter estimation and synchronization
- interests are sports, international contacts and a little sleep after the Alpbach summer school ;)



Phillip Brieden

Germany

- PhD student at the Institute of Geodesy at the Leibniz University Hanover, Germany
- working on Cal/Val of GOCE gravity gradient
- interested in future satellite missions, specially gravity field missions



Sara Bruni

Italy

- Bachelor degree in Physics; currently enrolled in Laurea Magistralis (2 yrs master degree) in Geophysics at Alma Mater Studiorum, University of Bologna
- Fields of interest:
 - solid Earth studies
 - Space techniques contribution to the observation of the Earth system



Ian Carter

Ireland

- Currently Undergraduate at the “Dublin Institute of Technology” Dublin, Ireland due to Complete a Honours Degree in Physics Technology June 2011
- Interests are in Remote Sensing, Chaos and Quantum Optical Systems..
- Hobbies are Climbing, Reading and playing Sports...



James Carton

Ireland

- Mechanical Engineering PhD student in PEM Fuel Cell Design & Optimisation
- Projects: 2 Zero G Flights, ISS Payload, Satellite Design, Weather Balloon, Ocean Buoy, Solar & Wind turbine systems, Hydrogen Fuel Cell Design
- Interest is space engineering & hopes to focus his career towards energy systems for space & Earth applications



Philipp Chambon

France

- expertise : Tropical meteorology, multi-sensor rainfall retrievals, error budget estimations, orbithography



Debbie Clifford

UK

- main interests are remote sensing, particularly of the land surface, and data assimilation
- current work: developing an idealised convection model for studying the assimilation of ground-based radar data
- PhD investigated measuring and modelling snow on global scales (and why the measurements and models don't agree!)



Frank de Morsier

Switzerland

- PhD student in image processing at EPFL (Lausanne, Switzerland)
- Interest in machine learning with application to remote sensing imagery classification
- Last but not least ! Hiking, sailing and guitar playing..



Florian Deconinck

France

- Student in aerospace engineering at ISAE-SUPAERO
- interest : sport (swimming, tennis, running), music, space !



Pierre Dubois

France

- Engineering Degree in image processing (SUPAERO); currently PhD
- student at C.L.S. (France)
- PhD activity: Sea state impact on elevation measurements for the future altimetric missions : interferometric wide swath radar and Doppler altimeters
- Fields of interests: image processing, climate change



Berivan Esen

UK

- BSc Chemistry student
- Started bachelor thesis on detecting organic compounds in Martian soil analogues
- Interests in, organic proxies of environmental change, organic matter detection on space missions, meteorites and extraterrestrial organic matter



Francois Faijan

France

- Degree in physics (atmosphere and optronics)
- Interested in radiative transfer, and
- optical instrumentation
- PhD student in first year at Météo-France, work
- on IASI instrument (infrared sounder)
- Hobbies: sports and science



Andreas Fink

Germany

- Aerospace Engineering student at the University of Stuttgart
- Currently working on Diploma Thesis in Bremen
- Field of interest: Human Space Flight, Space Stations



Kosmas Gazeas

Greece

- MSc and PhD in Astrophysics. Fields of interest: extragalactic stellar populations, evolution of binary stars, photometry, spectroscopy, optical instrumentation
- Currently working at ESA/ESTEC, Mechatronics and Optics Department. Fields of interest: imaging LIDARS and related technologies, ranging altimeter
- Personal interests: astronomy, photography, hiking, archery



Gergely Goldschmidt

Hungary

- MSc. studies in Computer Engineering and Biomedical Engineering at BME
- Research area are UV dosimetry and ESA ESEO group membership
- workmanship in satellite payload digital panel programming, bioinformatics and image processing
- interests in astrobiology and genetics



Ana Groth Grube

Denmark

- Study: Master student in geophysics at the Niels Bohr Institute at the University of Copenhagen
- Field of interest: Meteorology, Atmospheric dynamic, Atmospheric composition, Climate change



Ragnhild Schroder Hansen

Norway

- Starting a PhD in space physics in Bergen, working with gamma rays from lightning
- Bitten by the famous Svalbard basil
- Works a lot with science edutainment both in Norway and the rest of Europe.



Markus Heidinger

Austria

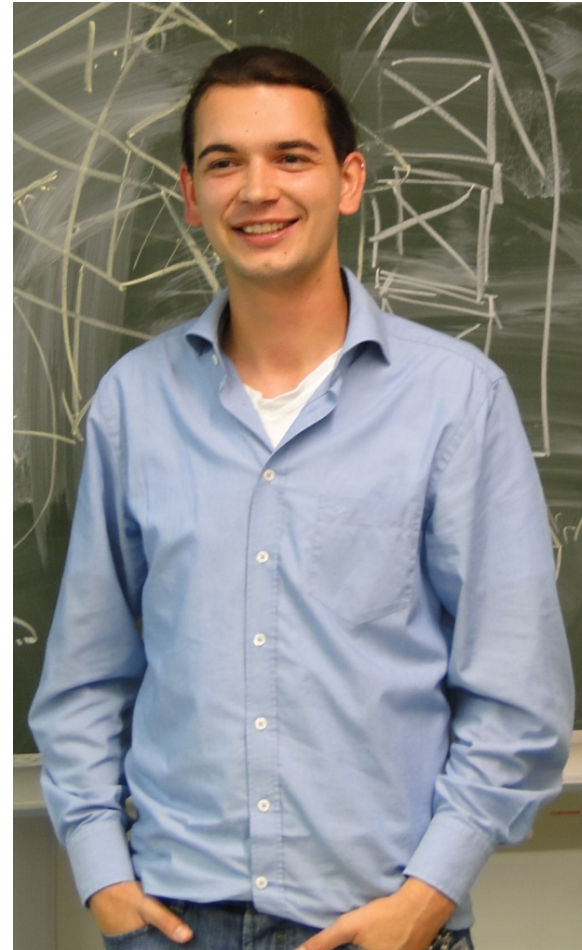
- master in meteorology
- scientific interests:
remote sensing of
snow, hydrology
- PhD student at Univ.
Innsbruck



Martin Herfort

Germany

- Degree:
Dipl.-Ing. Aeronautics and
Astronautics
- Fields of interest:
After taking part in the development
of the Beesat pico satellite Diploma
thesis on a nano satellite bus with
formation flight capabilities.
- main field of interest in very small
satellites, their advancing
capabilities and current as well as
future fields of applications
- Hobbies:
racing cars in the streets of Berlin
on my bike while I am riding to
work, swimming in the Baltic Sea,
travelling (if there is time) and
spending as much time as possible
with my friends from Kindergarden



Christine Hill

Germany

- currently writing diploma theses at the DLR in Cologne on an Aerospace Medicine topic
- worked at EADS Space Transportations in Friedrichshafen and Porsche Financial Services in Chicago
- interested in radiation measurements and simulations in human spaceflight and for satellite missions



Alex Hoffmann

Luxembourg

- PhD student in convective cloud modelling (University of Cambridge)
- MSc in environmental engineering (ETH Lausanne)
- former YGT at ESA/ESRIN's EOP Ground Segment Department involved in EO mission planning
- special interests include atmospheric & geophysical research, environmental fluid mechanics, lidar RS, aero- and astronautics



Jakob Hüsing

Germany

- Studied Space Engineering and Applied Mechanics at Dresden University of Technology
- Currently writing Master Thesis on Viscoelastic Behaviour of Cellular Structures at Vienna University of Technology
- Expertise in Thermal Analysis, Structural Mechanics, Mission Design, and System Engineering



Alexander Jarosch

Austria

- PhD on glacier vulcano interaction
- Currently postdoc research on glacier models, precipitation processes and climate glacier interaction at the University of Innsbruck



Maria Angeles Jurado Gallardo

Luxembourg

- 3rd year PhD student at the University of Luxembourg and Luxspace
- Interests: Satellite Communications, Digital Signal Processing
Hobbies: Reading, travelling, hiking, playing guitar



Katharina Kern

Austria

- M.Sc. in Geography
- Currently Ph.D. student at the Institute of Geography and Regional Science, University of Graz, Austria
- interested in: remote sensing, land cover/land use change, high mountains, natural hazards, global change



Dilek Killi

Ireland

- Expertise:
 - CO₂ emissions from Agricultural Sites and Interaction with Climate Change, Ecosystem C Exchange, Net Ecosystem Exchange with Eddy Covariance Technique, Mathematical Modelling of Crop Growth, Soil Physics and Biophysics



Ferdinand Klug

Austria

- Study: Geomatics Engineering, Technical University Graz
- Engineering background:
 - EXO Mars PTU-Controlling (Bsc. Project)
 - GNSS-Signal Analyses (Bsc. Project)
- Interests:
 - Satellite geodesy
 - Satellite positioning
 - Remote sensing
 - Space missions



Katrien Kolenberg

Austria

- PhD in astrophysics
- Research field: asteroseismology, and what's somehow connected (more than you think)
- Interests: Earthlings, art, clouds, and what's beyond



Stephan Kox

Germany

- Currently PhD-Candidate at DLR: Remote Sensing of contrails and contrail-cirrus with active and passive spaceborne instruments, i.e. CALIOP onboard CALIPSO and SEVIRI onboard MSG
- Interested in software engineering due to different projects at DLR and the University of Munich
- Skills in mechanical engineering based on theoretics and my Master thesis on ADM-Aeolus groundbased campaigns



David Krejci

Austria

- PhD study at Vienna University of Technology
- Miniaturized on-board propulsion systems, Electric Propulsion (Master Thesis) and Chemical Propulsion (PhD)



Thomas Krings

Germany

- PhD student at the University of Bremen, Germany
- Diploma in Geophysics at the University of Münster, Germany
- Scientific Interests:
Atmospheric Physics, remote sensing and retrieval of the greenhouse gases carbon dioxide and methane, climate change



Lucia Maria Laurenza

Italy

- Geoinformation PhD student at the Tor Vergata University, Rome
- Research fellow at IFAC-CNR, Institute of Applied Physics “Nello Carrara”, Sesto Fiorentino (Florence). Research project: retrieval of carbon dioxide from IASI-METOP observations
- Research interests: climate change, air quality and air pollution and, more in general, the impact of anthropogenic activities over atmospheric composition and climate



Jussi Leinonen

Finland

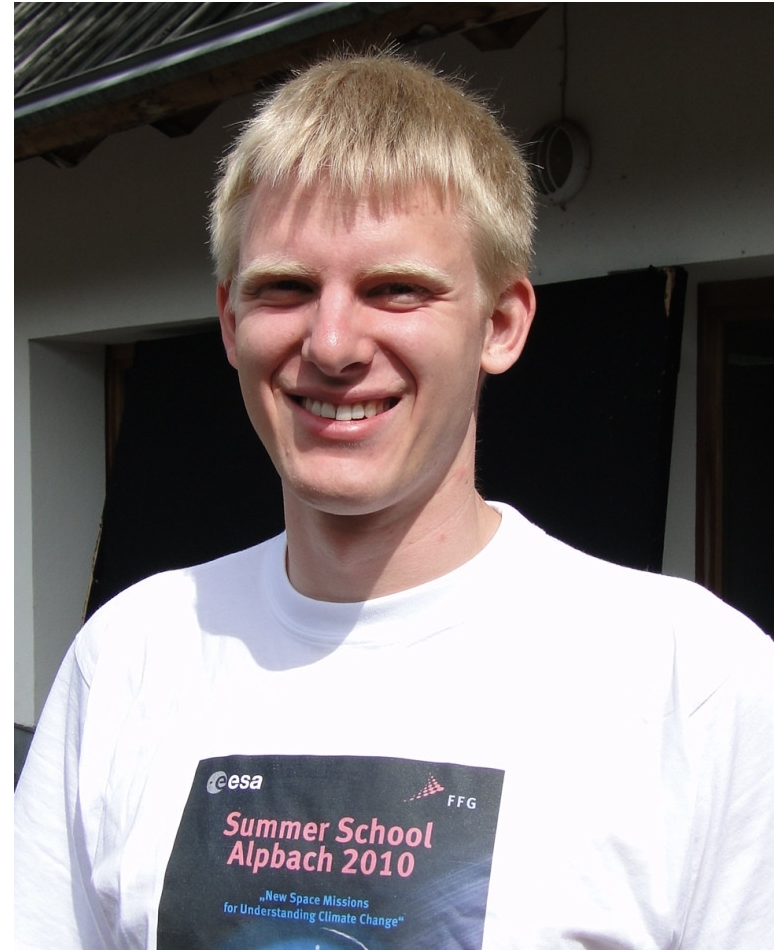
- expertise in precipitation, particularly snowfall, and measuring it with radar (whether on the ground, in the air or in space), fairly wide knowledge of the different aspects of space mission design
- non-work interests include photography, games, computing and skiing



Steffen Lohrey

Germany

- Student of aerospace engineering and atmospheric physics
- Research carried out in geophysical fluid dynamics (esp. gravity waves) and atmospheric remote sensing
- Interested in fluid dynamics and its application to the atmosphere, space and remote sensing technology



Adrien Martin

France

- PhD student in the validation of the ocean salinity from SMOS satellite. LOCEAN / IPSL / UPMC, Paris
- Master in information processing applied to environment



Brendan McCormick

UK

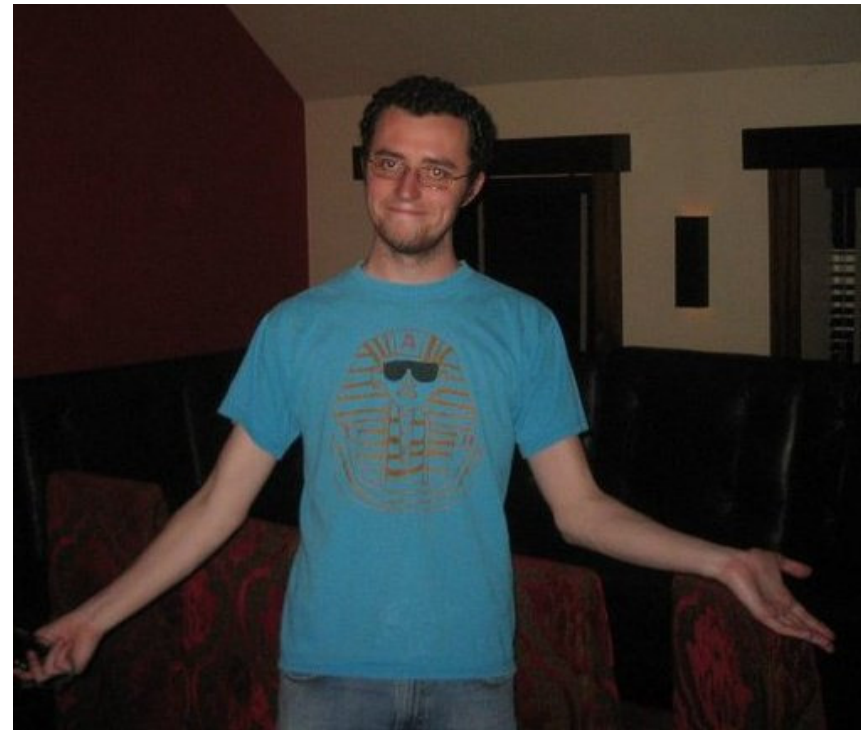
- Currently a PhD student in Volcanology at University of Cambridge
- Previously completed MEarthSc at University of Oxford
- Key research interest is satellite remote sensing of volcanic SO₂ emissions, and using this information to address questions in volcanology and other geological applications



Enda McLaoughlin

Ireland

- BSc in Physics with Astrophysics from NUI Maynooth, Ireland (2008)
- Undergraduate thesis on Supernova Remnants, in particular Cassiopeia A
- Currently pursuing a Ph.D in Experimental Physics - characterizing the properties of dielectrics in the mm and sub-mm range.
- Keen interest in Cosmology



Gregor Möller

Austria

- Expertise:
Master student in Geodesy
and Geophysics at Vienna
University of Technology
- Interests:
 - Satellite Navigation
 - Astronomy
 - Meteorology



Alexander Papadopoulos

Greece

- Astrophysics PhD student
- MSc in Astronautics and Space Engineering
- Area of research: Early type binary star systems



Claudia Papparini

Italy

- Bachelor Degree in **Physics**
- Master of Science in **Astrophysics and Physics of Space** 2009
- PhD, **Civil and Environmental Engineering**, 2010 – 2012:
Research activity in the framework of MIUR (Italian Ministry for University and Research) Strategic Research Programme: “Innovative Broadband Telecommunication Systems also with the use of satellites for different users in theme of security, prevention and intervention in cases of natural disasters”



Florence Pendrill

Sweden

- Starting an MSc in Environmental Monitoring, Modelling and Management at King's College London, Fall 2010
- BSc in Earth Sciences from University of Gothenburg. Thesis title: “Variable erosion of floor materials in degraded craters on Mars”, resulting from an internship at the Center for Earth and Planetary
- Studies at the Smithsonian National Air and Space Museum.
- Interested in global environmental change and paleoclimate on Earth and on Mars



Marc Pondrom

France

- PhD student in atmospheric physics ; inversion of infrared atmospheric spectra in the nadir viewing geometry
- interested in sports, especially Aikido, Karate and skiing



Veronika Proschek

Austria

- Currently a Ph.D. student working on a Retrieval of Green House Gas Profiles of LEO-LEO Infrared Laser Occultation at the Wegener Center for Climate and Global Change
- Diploma Thesis in Technical Physics at Technical University of Graz
- Besides working: Hiking, Skitours, Singing in a Choir, Enjoy Nature



Patrick Romano

Austria

- PhD student at Graz University of Technology
- Special area of interest: satellite communications
- Working on BRITE Austria/TUGSAT-1, the first Austrian nanosatellite



Dominik Scheiben

Switzerland

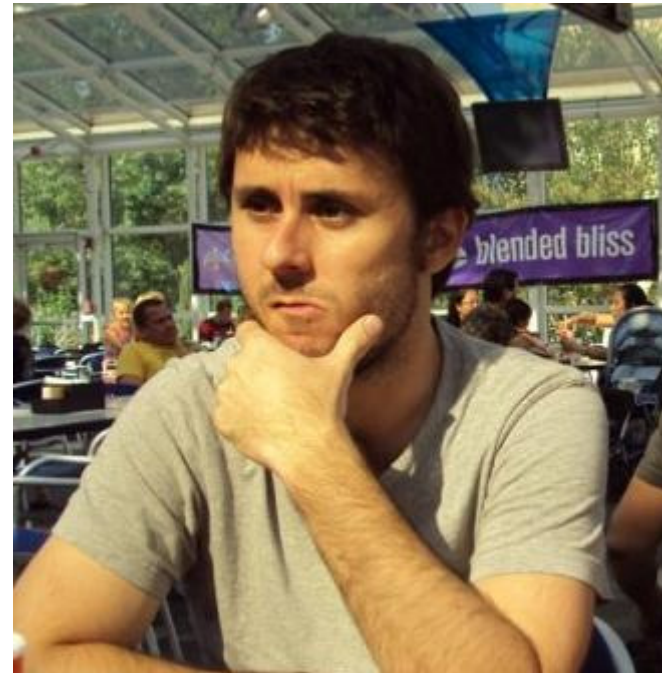
- Studies: Environmental Sciences with specialization in Atmospheric and Climate Sciences
- PhD student in ground-based atmospheric remote sensing of water vapor and ozone in the middle atmosphere
- Interests in large-scale atmospheric dynamics and atmospheric chemistry
- Hobbies: Tennis, Speedminton, Snowboard, Hiking



Daniel Selva Valero

Spain

- MS in Electrical Engineering by UPC (Barcelona, Spain, 1998-2002) and MS in Aeronautical engineering by Supaero (Toulouse, France, 2002-2004)
- Ariespace, Engineer member of the Ariane 5 launch team (Kourou, French Guiana, 2004-2008)
- PhD candidate in the Aeronautics and Astronautics department at the Massachusetts Institute of Technology (2008-present)
- Research interests: Space systems architecture, Earth observation satellites



Paulina Tamez-Hidalgo

Denmark

- Astrobiology
- Exoplanets
- Geomicrobiology

Hobbies:

- Camping, animal lover, ambientalist, music, party, chemistry, travelling



Nadia This Belgium

- BSc Physics
- MSc Astronomy & Astrophysics
- Msc Space Studies



Ricardo Topham

Spain

- Expertise in electronics and communication systems
- Interests in satellite & missions design, and monitorisation & analysis of environmental parameters using remote sensing



Sebastian Trowitzsch

Germany

- Onwards from participating in the design of the pico satellite BEESAT in 2005, I set my focus on the design and development of small satellites
- Recently graduated as an aerospace engineer at the chair of astronautics at TU Berlin and currently managing the follow-up mission BEESAT-2
- My main field of interest is in the miniaturization of satellite subsystems and components for cost effective space missions



Zoltan Utasi

Hungary

- Fields of interest:
 - geomorphology
 - geoinformatics



Siri Merete Vaktal

Norway

- Master student in Space Physics at University of Bergen
- Terrestrial Gamma-ray Flashes
- Special fields of interest: Plasma, Ionosphere and Radiation



Claudia Weitnauer

Germany

- Student of Physical Geography with focus on climate modelling and hydrology
- Diploma Thesis: Analysis of OH-Airglow-Data with respect to gravity wave signatures above the Alps at the DLR Oberpfaffenhofen
- interested in remote sensing of atmosphere and land observation, applied hydrology

