

TECHNICAL DETAILS

The Spring School will be held in English and is free to attend. However, the number of participants is limited to 12 for the workshop 21-22 March and to 30 for the conference day 23 March. The Spring School is designed for advanced SfM users, such as PhD students, PostDocs, Researchers, and advanced Master students. The workshop will be organized as an in-person event. The conference day will be in a hybrid format (in presence and online video conference). Coronavirus regulations by the federal state of Thuringia and FSU Jena apply.

REGISTRATION

Please indicate whether you intend to participate in the conference session 23.3. in person **or** online **and / or** the workshop 21./22.3. (limited to 12 participants, in person only):

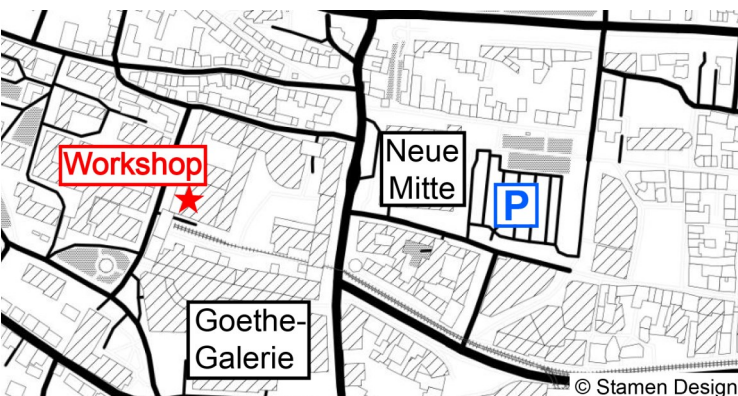
[www.uni-jena.de/
sfmspringschool_22_register](http://www.uni-jena.de/sfmspringschool_22_register)

HOW TO FIND US

Carl-Zeiss-Straße 3, 07743 Jena

Workshop: PC-Pool 1100

Conference: HS 4



CONTACT

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STRUCTURE-FROM-MOTION IN EARTH SCIENCES

Spring School

21.– 23. March 2022 | Jena & online

SFM IN EARTH SCIENCES

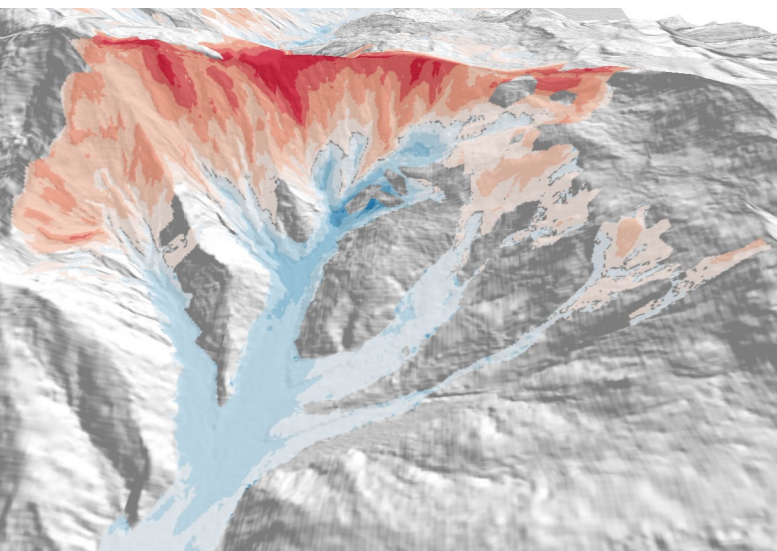
Structure-from-Motion (SfM) has become a widely used method to reconstruct three-dimensional models from a variety of image sources – in Earth Sciences and beyond. Although the methods used in an SfM workflow are well-established, we see rapid developments of the method as well as many new applications. The Spring School "SfM in Earth sciences" from 21-23 March, 2022, will address these new developments. It offers a platform for exchange for professionals and researchers.

SFM WORKSHOP 21-22 MARCH

The Spring School offers a two-day workshop on March 21-22 March, run by Marko Vrabc from the University of Ljubljana. The workshop will focus on best practices for the SfM workflow with Agisoft Metashape. There will be plenty of space for questions from beginners and more advanced users alike. However, basic knowledge of the software is required.

CONFERENCE DAY 23 MARCH

The conference day on 23 March offers insight into cutting-edge research on the SfM method and into a wide range of applications. We are proud to have collected a set of interesting talks on a variety of topics, and there will be time for detailed discussion.



PROGRAMME

Monday/Tuesday, 21-22 March 2022
PC-Pool 1100, Carl-Zeiss-Str. 3

9:00 am **WORKSHOP**
Best practises in Virtual Geology
A hands-on exercise in image acquisition in the surroundings of Jena; and tips and tricks for processing and scene reconstruction with Agisoft Metashape.
Marko Vrabc / Ljubljana

Wednesday, 23 March 2022
HS 4, Carl-Zeiss-Str. 3

10:00 am **INTRODUCTION**
Alexander Brenning & Kamil Ustaszewski / Jena

10:15 am **Citizen science with UndercoverEisAgenten.**
Monitoring of Arctic permafrost with UAV images and SfM-derived orthomosaics and point clouds.
Christian Thiel & Marlin Müller / Jena

11:00 am **Deciduous tree degradation analysis in the historical landscape parks of Sanssouci and Babelsberg (Potsdam) with UAS data.**
Data preprocessing and Object Based Image Analysis.
Sören Hese / Berlin

Wednesday, 23 March 2022 (cont'd)
HS 4, Carl-Zeiss-Str. 3

12:00 pm **LUNCH BREAK**

1:00 pm **Time-lapse photogrammetry for 4D observations.**
Introduction to the principles and application of photogrammetric approaches for 3D measurements in geomorphology and soil sciences with high spatial and temporal resolution.
Anette Eltner / Dresden

1:45 pm **Quantifying uncertainties in SFM derived elevation models.**
A case study of snow depth monitoring in the French Alps.
Jason Goetz / Jena

2:30 pm **COFFEE BREAK**

3:15 pm **Challenges of terrestrial laser scanning underground and in caves.**
Matthias Knaak / Krefeld