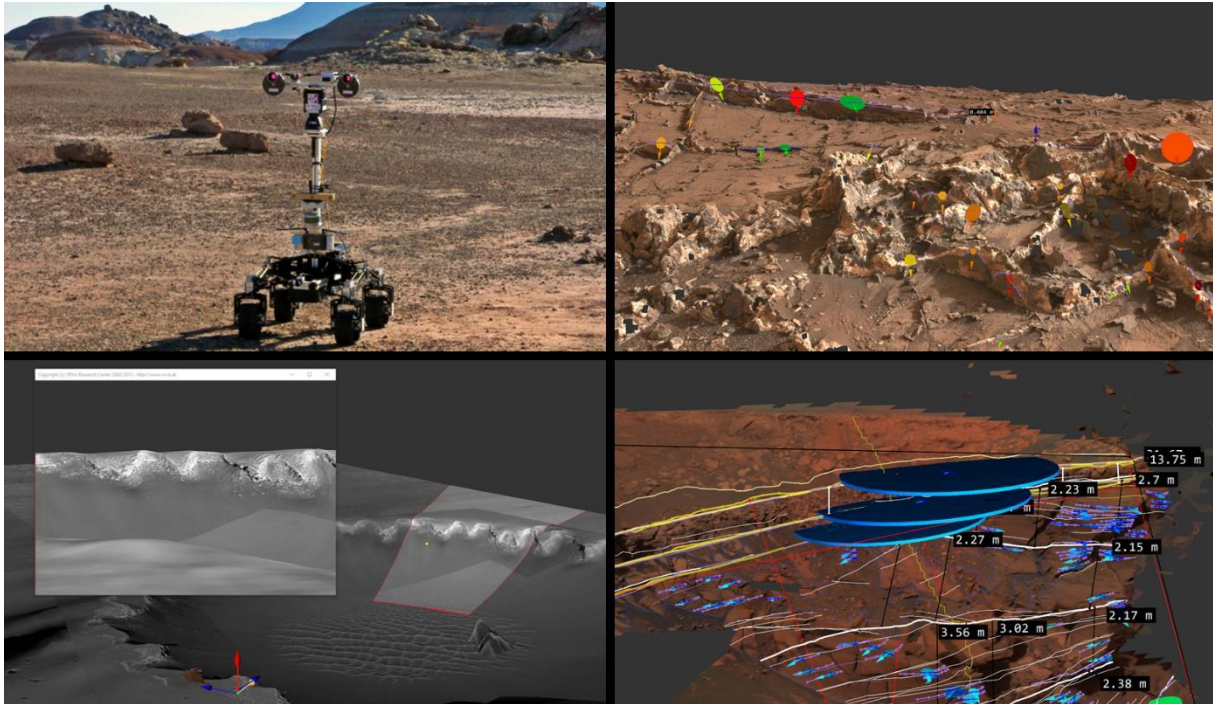


WORKSHOP ON 3D & VISUALIZATION FOR PLANETARY SURFACE SCIENCE

PROGRAM AND INFORMATION



In preparation of Mars 2020 and ExoMars, JOANNEUM RESEARCH and VRVis, in collaboration with the Museum of Natural History Vienna and Imperial College London, will hold a Workshop on 3D Visualization for Planetary Surface Science on April 6th and 7th, 2018 at VRVis. These are the two days before EGU 2018 starts but it is NOT an EGU workshop.

The workshop targets the use of 3D vision & visualization tools as necessary for planetary robotic surface missions' science. It will be inspired by the current 3D vision and visualization work conducted by JOANNEUM RESEARCH & VRVis in preparation for the Mars 2020 Mastcam-Z and ExoMars PanCam instruments' 3D vision & data exploitation.

We are happy to welcome planetary scientists, providers of instruments and relevant industrial stakeholders from the planetary exploration domain, as well as space agencies and national funding organizations to get an overview of the activities and discuss the numerous user patterns.

Participation is free of charge for interested members of the space exploration community.

PROGRAM

Day 1 – FRI April 6 th		
9:30	Introduction	
	Gerd Hesina / all	Welcome and introductory round
	Gerhard Paar	Status report on ExoMars/Mastcam-Z 3D Vision: Overview & outlook
	Thomas Ortner	PRo3D 2.0 Interactive Exploration of Planetary Surfaces (incl. demo)
10:45	Coffee Break	
11:00	Visualization	
	Rob Barnes	PRo3D 2.0 for Geologic annotation & exploitation
	Jan-Peter Muller	The i-Mars web-GIS platform for viewing surface changes and multi-resolution DTM products (Co-Authors Yu Tao, Sebastian Walter)
	Divya Persaud	An exploration of different visualization platforms for orbital-to-ground (Co-Author Jan Peter Muller)
12:00	Lunch Break (on-site lunch will be provided at the meeting place)	
13:00	VRVis tour and demos	
13:45	Science Use Cases	
	Matt Balme	Measuring aeolian ripples at an ExoMars landing site using PRo3D
	Gerhard Paar / Christian Koeberl	Shatter Cones Visualization: Objectives & Status
	Rob Barnes	Overview on Imperial College London PRo3D use cases, data, results
15:00	Coffee Break (& discussion)	
15:30	"Customer" Cases for 3D vision & visualization	
	Bernard Foing	Moon Village
	Stephan Kempe	Using a hand lens tool to investigate geologic / mineralogic textures
	Björn Grieger	A self-adapting global map of the irregular shaped comet 67P
16:30	Wrapup Day 1 and Discussion	
17:00	End of day 1	
	Option for further discussions	
19:00	Get Together & Dinner in close-by restaurant	

Day 2 – SAT April 7 th		
9:30	Technical & Strategic Aspects	
	Matt Gunn	PanCam, CLUPI, ISEM rover level calibration / cross calibration plans
	Gerhard Paar, Rob Barnes (Discussion supported by impulse presentations)	<ul style="list-style-type: none"> • (Elyse Allender) Multispectral Data & 3D • (Rob Barnes) Validation • Archiving, data maintenance • Collaboration, data sharing • Interoperability and data exchange between tools (PPro3D, 3D-ROCS, Viewpoint, ...) • View Planning
10:45	Coffee Break	
11:00	Instruments	
	Piluca Caballo	GEPE – JR Geometric PanCam Emulator
	Matt Gunn	AUPE – Aberystwyth University PanCam Emulator
	TBD	PanCam related 3D and visualization topics
	Jean-Luc Josset	ExoMars CLUPI – Aspects for 3D & Visualization
12:15	Lunch Break (on-site) & Group Photo using GEPE	
13:15	Instruments (ctd.)	
	Jim Bell	Mastcam-Z related 3D and visualization topics
13:45	Virtual Reality	
	Helen Miles	RAVEN – a concept for VR
	Thomas Ortner / All	(optional) VR Demo using PPro3D / interactive discussion
15:00	Coffee break	
15:15	All (Discussion)	<ul style="list-style-type: none"> • Deployment of PPro3D to the science community, Maintenance of SW versions; license needs • Tools' role in publications • Synergy between Mars 2020 & ExoMars in related topics • Joint field trials • Landing site implications on 3D vision • Maintaining test use cases & data
16:30	All (Discussion)	General Discussion & wrap-up
17:00	End of day 2	

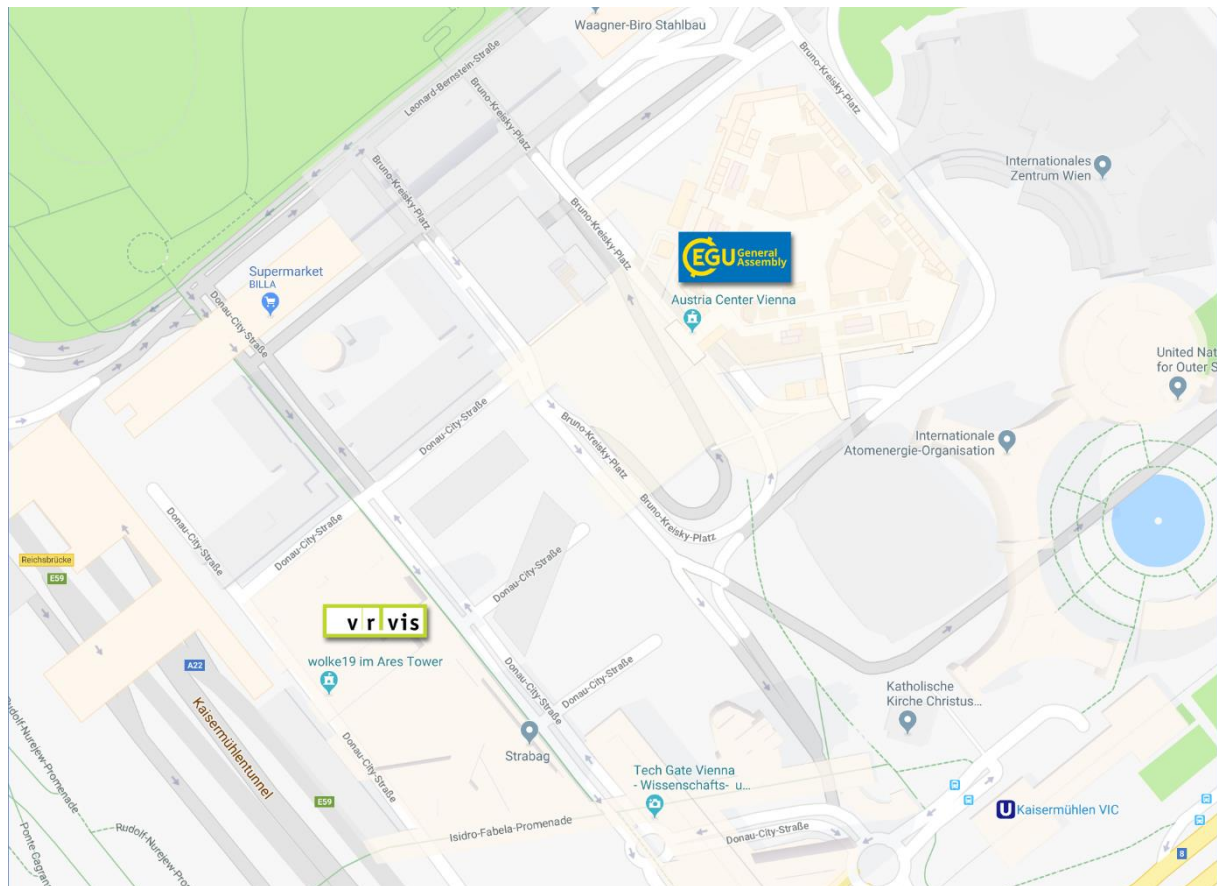
WORKSHOP VENUE

The workshop will take place in the meeting rooms of VRVis. Its office is within walking distance of the EGU venue (see map below).

Street address	Contact information
Donau-City-Straße 11 / 5 th floor 1220 Vienna Austria	Phone: +43 (1) 908 98 92 Email: office@vrvis.at
Organizers (for questions concerning the program)	
Gerhard Paar, JOANNEUM RESEARCH Phone: +43 (316) 876 - 1716 Email: gerhard.paar@joanneum.at	Chris Traxler, VRVis Phone: +43 (1) 908 98 92 - 520 Email: traxler@vrvis.at

A photo guide shows how to reach VRVis from the U1 subway station “Kaisermühlen”:

www.vrvis.at/en/contact/photoguide-vrvis/



ACCOMMODATION

If you plan to attend EGU 2018 you might prefer to use their hotel reservation service also for the days of the workshop egu2018.eu/accommodation.html.

If not, we recommend making your hotel reservation as early as possible because the EGU travelling agency has already secured many rooms in hotels nearby. The following hotels are within walking distance or only one subway station away:

- [Meliã Vienna](#)
- [ARCOTEL Kaiserwasser Superior](#)
- [Park Inn by Radisson Uno City Vienna](#)
- [NH Danube City](#)

If you prefer to stay downtown, VRVis can be reached by subway line U1 in less than 20min from the city center. Tourist information is available here: www.wien.info/en.

