

ISSI Venus Workshop and Book, Kick-off meeting Jan 19th-21st, schedule and draft Table of Contents

The ongoing COVID-19 pandemic has motivated ISSI to propose an alternative scheme for the workflow of getting from a workshop to the publication of the book that comes with every ISSI workshop. (The book will be co-published as peer reviewed Topical Collection in Space Science Reviews.)

Rather than starting with the workshop, defining a table of contents and forming author teams followed by chapter writing, peer review and publication, the alternative scheme starts with an on-line kick-off meeting to define the table of contents and form author teams. The *in-person* workshop is still planned but later in the process as the situation with the pandemic and the progress of chapter writing will suggest. For the Venus project, the week of July 12-16 has been blocked in the ISSI calendar. It is foreseen that the workshop will have plenty of time for discussion including discussions between chapters.

The kick-off schedule and a draft table of contents are presented below. The schedule foresees introductions by conveners and ample time for discussion.

Day 1, Jan 19		
16:00-16:30	Welcome, Scope of Project and Workshop, time line etc.	All conveners, T. Spohn for ISSI
16:30-17:00	<ol style="list-style-type: none"> 1. General (Comparative Planetology) 2. Accretion and Early Venus: Models and Constraints 	Introduction by C. Gillmann & C. Wilson
17:00-17:30	Discussion of chapters for section 0 and 1. Formation of author teams	all
17:30-18:00		
Day 2, Jan 20		
16:00-16:30	3. Observational constraints on Geological Processes (age, tectonism, volcanism)	Introduction by S. Smrekar
16:30-17:00	Discussion of chapters for section 2. Formation of author teams	all
17:00-17:30		
17:30-18:00	Breakout discussions sections 1 and 2 as needed	
Day 3, Jan 21		
16:00-16:30	<ol style="list-style-type: none"> 4. Convective and Tectonic Regimes through History 5. Epilogue: Future observations and missions chapter 	Introduction by D. Breuer & T. Widemann
16:30-17:00	Discussion of chapters for section 3 and 4. Formation of author teams	all
17:00-17:30		
17:30-18:00	Overall Summary, Book concept, Workshop discussion and planning,	all

Draft Table of Contents (to be discussed at the kick-off)

(sections in black, chapters/articles in red, subs in dark blue)

1. General (Comparative Planetology)

- a. Venus, the Planet: Introduction to Earth's sister planet
 - i. Comparison of two terrestrial planets
 - ii. Venus and the early Earth (formation, early evolution, early habitability)
 - iii. Diversity in evolution (greenhouse, tectonics...)
- b. Venus as a case study for exoplanets

2. Initial Conditions, Accretion and Early Venus

- a. Accretion of Venus and its magma ocean
- b. Water and the early atmosphere including early volatile loss processes
- c. Volatiles and noble gas isotopes

3. Surface Processes, Age of the Surface and Evidence for Current Activity

- a. Venus Tectonics
- b. Surface Composition and Tesserae
- c. Resurfacing history and volcanism of Venus
- d. Magmatic volatiles and their effects on the atmosphere

4. Interior regime throughout history, water and other volatiles

- a. Composition and Interior Structure of Venus
- b. Venus mantle convection and tectonic styles
- c. Atmosphere-interior evolution of Venus

5. Epilogue

- a. Open questions and future observation and exploration (how to answer the open questions ... Veritas, DaVinci+, EnVision, Russian, Indian... missions)

Notes:

Workshop participants are encouraged to volunteer as authors and (co-)lead authors.

An outlook to future observations is encouraged to be included in each chapter.