IIG Scholars' Colloquium

Introduction to Volcanoes, Volcanic Eruptions, and Volcanism on Venus

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Abstract:

Volcanism has played an important role in shaping Earth's surface, contributing to atmospheric evolution, recycling crustal material, and forming valuable mineral resources. This introductory talk will cover the fundamentals of volcanoes, their formation, different types of volcanic eruptions, and associated hazards. It will then explore how large volcanic eruptions can influence the atmosphere-ionosphere system through the generation of atmospheric waves, highlighting the connections between volcanic activity and atmospheric processes. Finally, the talk will extend beyond Earth to examine volcanism on Venus, focusing on its major volcanic landforms, radar-based observations, and observational evidence for recent or ongoing volcanic activity.