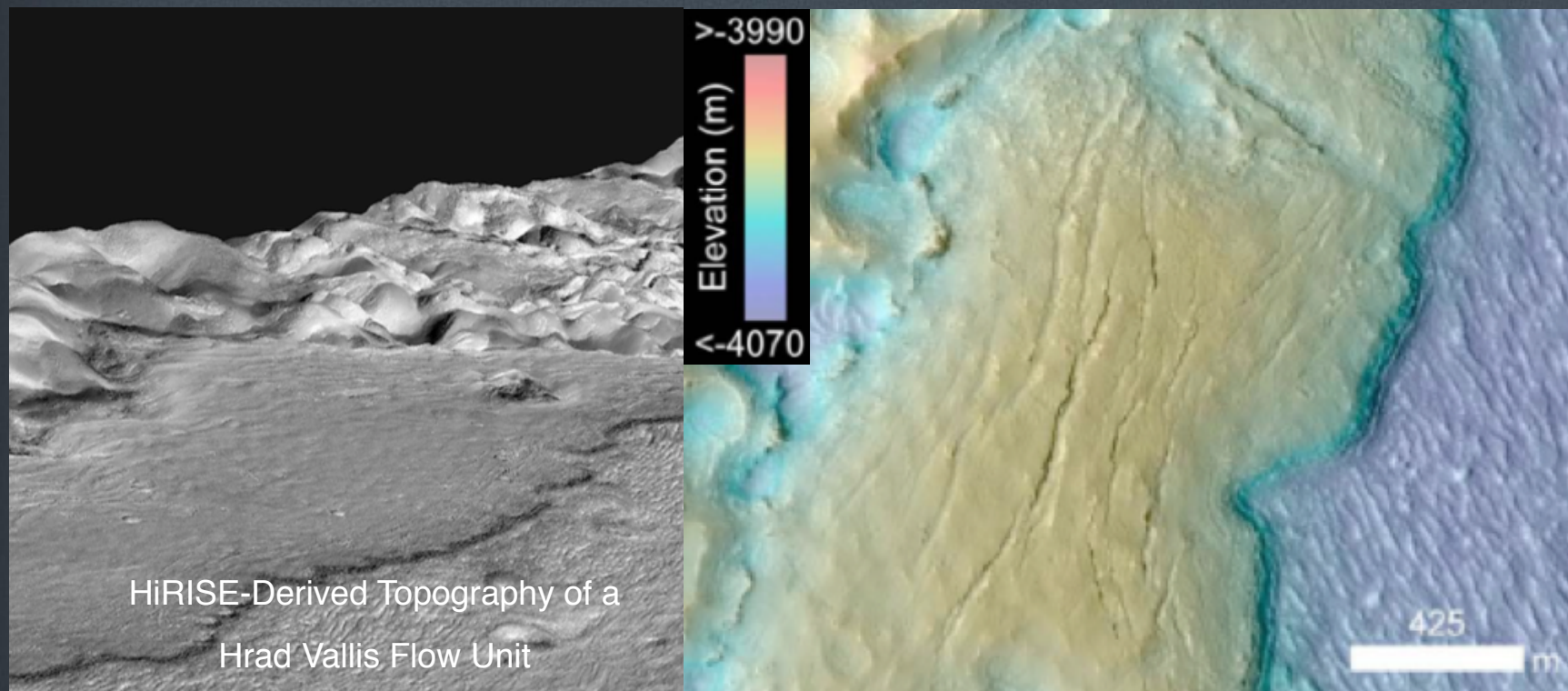


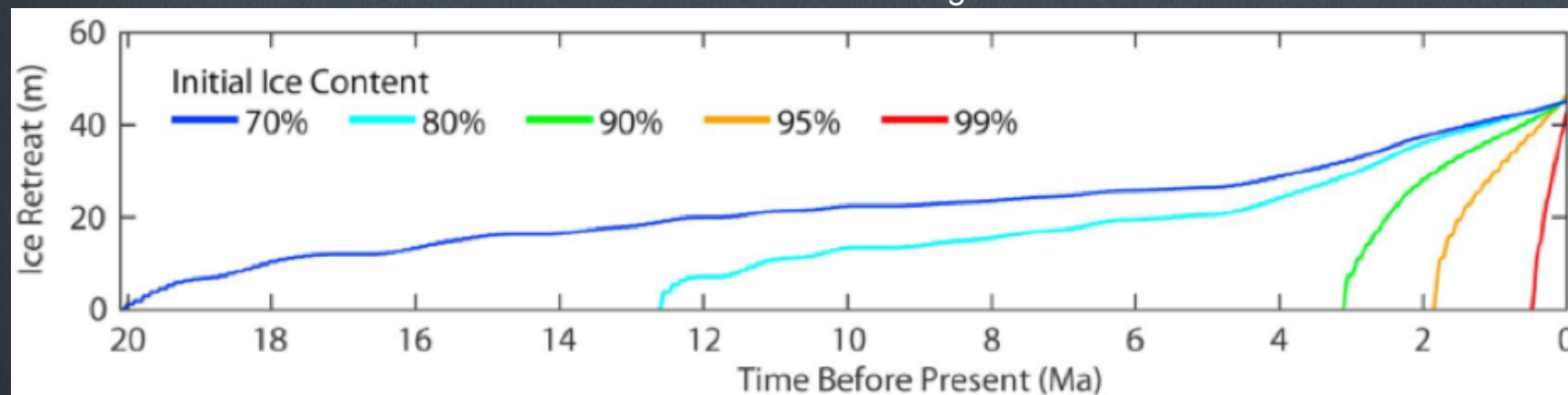
# Hawaiian-Style Lava Flow on Mars

Eos Research Spotlight: [Tracing the Steps of Hydrothermal Activity in Hrad Vallis, Mars](#)

Hamilton CW, PJ Mouginis-Mark, MM Sori, SP Scheidt, and AM Bramson (2018) Episodes of aqueous flooding and volcanism associated with Hrad Vallis, Mars. *Journal of Geophysical Research: Planets*, 123(6), 1484–1510. <https://doi.org/10.1029/2018JE005543>



Modeled Ice Retreat Rates Through Time



**Key Points:** *Geomorphological characterization and numerical modeling of ice stability shows that flow units near Hrad Vallis are pāhoehoe (Hawaiian-style lava), not mud flow deposits.*

*The emplacement time of a pāhoehoe flow of the observed thickness (50 m) would require decades (16–36 years).*

*Lava-induced hydrothermal systems in Hrad Vallis may have created habitable niches for life.*



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