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At the Speed of Volcanic Eruptions

What happens under volcanoes in the months leading up to eruption? How does the magmatic system prepare for an eruption? And why are some eruptions more explosive than others? Crystal clocks are providing some answers to these questions. Chemical zonation preserved inside crystals and their inclusions are providing some of the fastest clocks in geology. These timescales of chemical diffusion operate over minutes to years prior to eruption. This talk will examine new constraints on volcanic run-up, forecasting and eruption dynamics.