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Tremor signals in multiple diverse volcanic environments: what do they tell us?

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Tremor signals are viewed with considerable interest in volcanic environments as they often precede volcanic eruptions. The most common interpretation of these pre-eruptive signals is that they are related to fluid motion in the subsurface. On the other hand tremor has been detected in a range of non-volcanic environments (e.g. landslides, subduction zones) where the direct action of fluids is unlikely to play a role in tremor generation, calling into question our focus on the role of fluids in volcanic settings. In this presentation I will compare and contrast the range of volcanic environments in which tremor is observed. Consistent with recent findings in plug growth environments I will conclude that fluid motion is not, in general, a necessary condition for tremor generation on volcanoes. The implications of this concluding will be explored in the context of tremor source processes and early warning.