Title: Neutrino Tomography of Earth

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Abstract: Neutrinos produced in cosmic ray interactions in the atmosphere provide a unique and independent probe to explore the internal structure and composition of the deep Earth, which is complementary to traditional seismic and gravitational measurements and would pave the way for multi-messenger tomography of Earth. I will discuss the two different approaches to perform Earth tomography with neutrinos: (i) neutrino absorption tomography, based on partial absorption of a high-energy TeV-PeV neutrino flux as it propagates through Earth and (ii) neutrino oscillation tomography, based on Earth matter effects due to the coherent forward scattering of multi-GeV neutrinos with the ambient electrons modifying neutrino oscillation patterns.