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Lunar Structure from Coda Wave Interferometry

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As part of the Apollo lunar missions, four seismometers were deployed on the near-side of the Moon between 1969 and 1972, and operated continuously until 1977. There are many difficulties associated with determining lunar structure from these records. As a result, many properties of the moon, such as the thickness, density and porosity of the crust are poorly constrained. This hampers our ability to determine the structure, geochemical composition of the moon, its evolution, and ultimately the evolution of the solar system. We explore the use of coda wave interferometry to reconstruct the near surface structure within the strongly scattering lunar crust.