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3D-ambient noise group velocity tomography of Snaefellsjökull volcano, Iceland

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From May to September 2013 21 seismic stations were deployed around Snaefellsjökull volcano, Iceland. We cross-correlate the 5 months of seismic noise and measure the Rayleigh wave group velocity dispersion curves. We use a 3D tomography procedure to compute velocity maps between 0.9 and 4.8 s. The results allow us to constrain the size and depth of the magmatic reservoir as well as the geological structures beneath Snaefellsjökull volcano. We provide accurate velocity models for the peninsula.