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## Crustal Structure across Central Scandinavian Peninsula along Silver Road refraction profile

**Metin Kahraman**<sup>1,2</sup>, Hans Thybo<sup>3,4,5</sup>, Irina Artemieva<sup>6,7,8</sup>, Alexey Shulgin<sup>9</sup>, Alireza Malehmir<sup>10</sup>, and Rolf Mjelde<sup>11</sup>

<sup>1</sup>Eurasia Institute of Earth Sciences, Istanbul Technical University, Istanbul, Turkey (metinkahraman@itu.edu.tr)

<sup>2</sup>Boğaziçi University Kandilli Observatory and Earthquake Research Institute, Geophysics, Istanbul, Turkey (metin.kahraman@boun.edu.tr)

<sup>3</sup>Eurasia Institute of Earth Sciences, Istanbul Technical University, Istanbul, Turkey (thybo@itu.edu.tr)

<sup>4</sup>Centre for Earth Evolution and Dynamics, University of Oslo, Oslo, Norway (thybo@geo.uio.no)

<sup>5</sup>China University of Geosciences, School of Earth Sciences, Wuhan, China (h.thybo@gmail.com)

<sup>6</sup>GEOMAR Helmholtz Center for Ocean Research, Section of Marine Geodynamics, Kiel, Germany (iartemieva@geomar.de)

<sup>7</sup>Stanford University, Department of Geophysics, CA 94305, USA (irinageo@stanford.edu)

<sup>8</sup>China University of Geosciences, School of Earth Sciences, Wuhan, China (iartemieva@gmail.com)

<sup>9</sup>Centre for Earth Evolution and Dynamics, University of Oslo, Oslo, Norway (alexey.shulgin@geo.uio.no)

<sup>10</sup>Uppsala University, Uppsala, Sweden (Alireza.Malehmir@geo.uu.se)

<sup>11</sup>Department of Earth Science, University of Bergen, Bergen, Norway (Rolf.Mjelde@geo.uib.no)

The Baltic Shield is located in the northern part of Europe, which formed by amalgamation of a series of terranes and microcontinents during the Archean to the Paleoproterozoic, followed by significant modification in Neoproterozoic to Paleozoic time. The Baltic Shield includes an up-to 2500 m high mountain range, the Scandes, along the western North Atlantic coast, despite being a stable craton located far from any active plate boundary.

We study a crustal scale seismic profile experiment in northern Scandinavia between 63°N and 71°N. Our Silverroad seismic profile extends perpendicular to the coastline around Lofoten and extends ~300km in a northwest direction across the shelf into the Atlantic Ocean and ~300km in a southeastern direction across the Baltic Shield. The seismic data were acquired with 5 explosive sources and 270 receivers onshore; 16 ocean bottom seismometers and air gun shooting from the vessel Hakon Mosby were used to collect both offshore and onshore.

We present the results from raytracing modelling of the seismic velocity structure along the profile. The outputs of this experiment will help to solve high onshore topography and anomalous and heterogeneous bathymetry of the continental lithosphere around the North Atlantic Ocean. The results show crustal thinning from the shield onto the continental shelf and further into the oceanic part. Of particular interest is the velocity below the high topography of the Scandes, which will be discussed in relation to isostatic equilibrium along the profile.