



## **PKiKP coda features at precritical distances**

**D.N. Krasnoshchekov, P.B. Kaazik, V.M. Ovtchinnikov**

Institute of Dynamics of Geospheres of Russian Academy of Sciences  
(krasnd@idg.chph.ras.ru)

We analyze coda waves that follow reflections (PKiKP phase) from the Earth's inner core boundary (ICB) on array records of underground nuclear explosions. Being essentially a product of waves scattered, reflected or refracted on seismic path's heterogeneities including those in the inner core, the PKiKP coda wavetrain shows great diversity in shape, frequency content, intensity and duration. We observe different PKiKP coda envelopes spindle-shaped, as a set of separate spikes, or with sharp onset and following smooth decay. Its' frequency content can vary from a narrow high-frequency band 2.8 - 5.6 Hz for small distances to almost full range of seismic waveforms of 0.7 - 7 Hz for more distant events. The appropriate coda durations make up to 200 s after the PKiKP arrival. For narrow angle reflections, where major contribution to PKiKP coda is seemingly due to fine scattering texture of the upper inner core, the observed codas are sometimes fairly weak, which suggests quantification of the contribution as soon as coda specifics are used to derive inner core structural or dynamic estimates. In the same time, available coda observations let no regular global seismic reflectors at least 300 km below the ICB.