

Introduction to Deep Seismic Reflection Profiling

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These introductory remarks will discuss the application of deep seismic reflection profiling in integrated, multidisciplinary studies of crustal architecture along the South and North American mainland and continental margins, European mainland and margins, and also in Japan and China. The methodology of these studies was based on integration of geological and geophysical data, particularly regional deep seismic reflection profiles, seismological data, gravity and magnetic data, results of exploratory drilling, and analogs with other sedimentary basins and orogens. Some of the results will be compared with similar studies, emphasizing the contrasts and similarities of interpretation of regional features in diverse regions. These results should also stimulate fresh consideration of future targets for deep seismic studies.