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Raluca Felea*, Rochester Institute of Technology, School of Mathematical Sciences, Rochester, NY 14623. *Microlocal analysis in seismic imaging.*

We consider two standard ways of collecting data in seismic imaging: the common midpoint acquisition geometry and the common offset acquisition geometry. We study the linearized operator F , which maps singularities in the velocity field to singularities in the resulting pressure field at the surface. We use the microlocal properties of F and F^*F to determine which geometry shows more features of the subsurface and adds fewer artifacts. This is joint work with V. Krishnan, C. Nolan, T. Quinto. (Received January 11, 2015)