Improving earthquake early warning in the U.S. and around the world: ShakeAlert, MyShake and beyond

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ShakeAlert is the U.S. earthquake early warning system that is now in the process of being rolled out across the U.S. west coast. it uses traditional networks of seismic and geodetic stations to provide seconds to minutes of warning. The newly operational 'production prototype' system is now available for pilot projects in which selected users make automated responses and warn personnel of forthcoming shaking. Improved methodologies are also under evaluation for inclusion in the system. New approaches focus on providing better information in the biggest earthquakes by assessing the finite extent of the rupture and updating the warning accordingly.
MyShake is a new experimental approach to earthquake early warning that harnesses the accelerometers in personal smartphones to detect the earthquake and assess the hazard. In the first two days of the public release 50,000 people installed the app on their android phones around the world (see map). We will report on the performance of this system and its potential to contribute to early warning in regions with and without traditional seismic networks.

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