Figure S1:

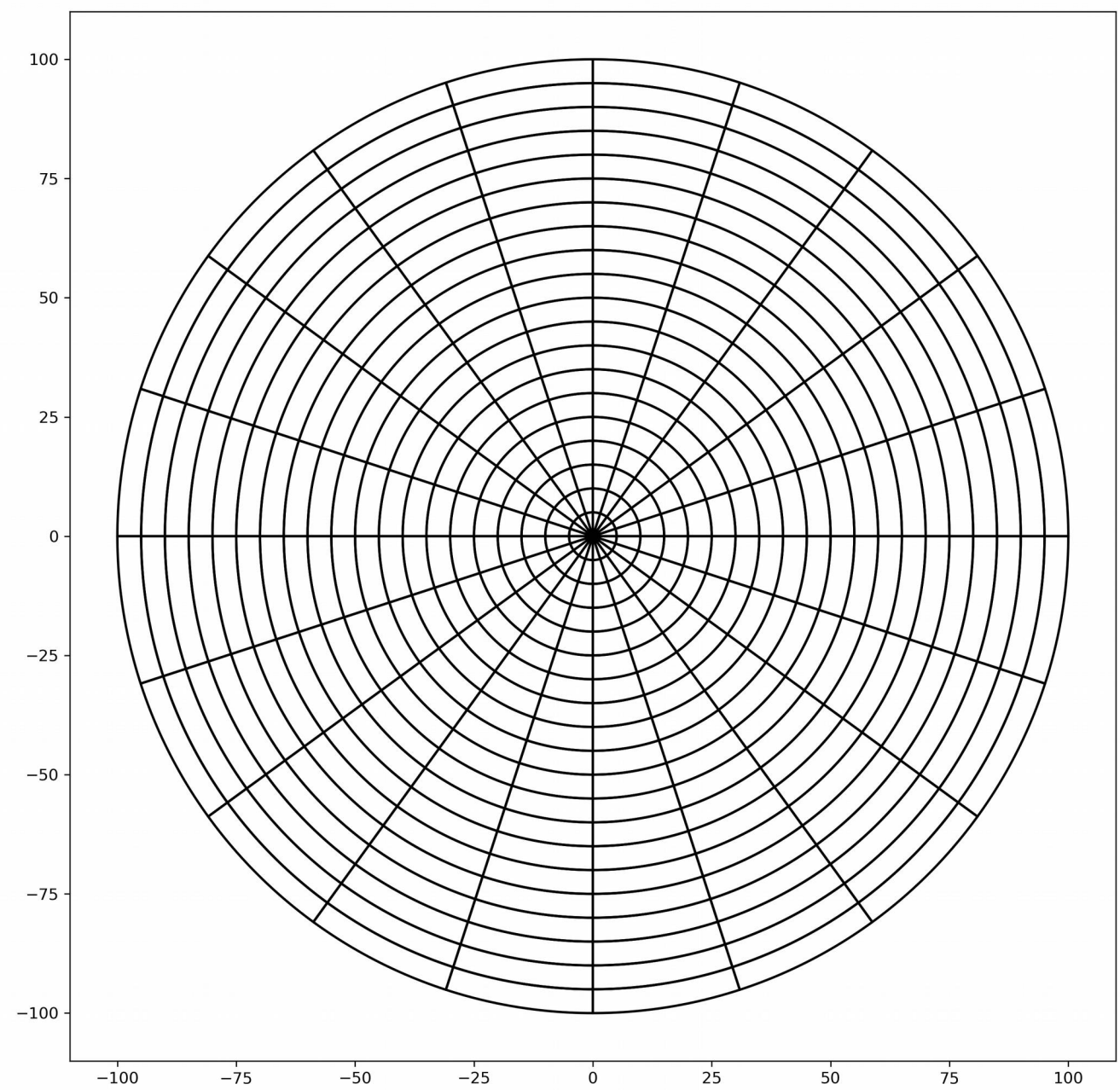

Figure S1: Radial grid or circular grid, created by drawing 20 concentric circles within the radius of 100km, and each circle is further divided into 20 arcs, thereby providing a radial grid with 400 spatial cells. The radial grid provides a simplest form of a multi-resolution grid with the area of each cell increasing away from center.

Figure S2:

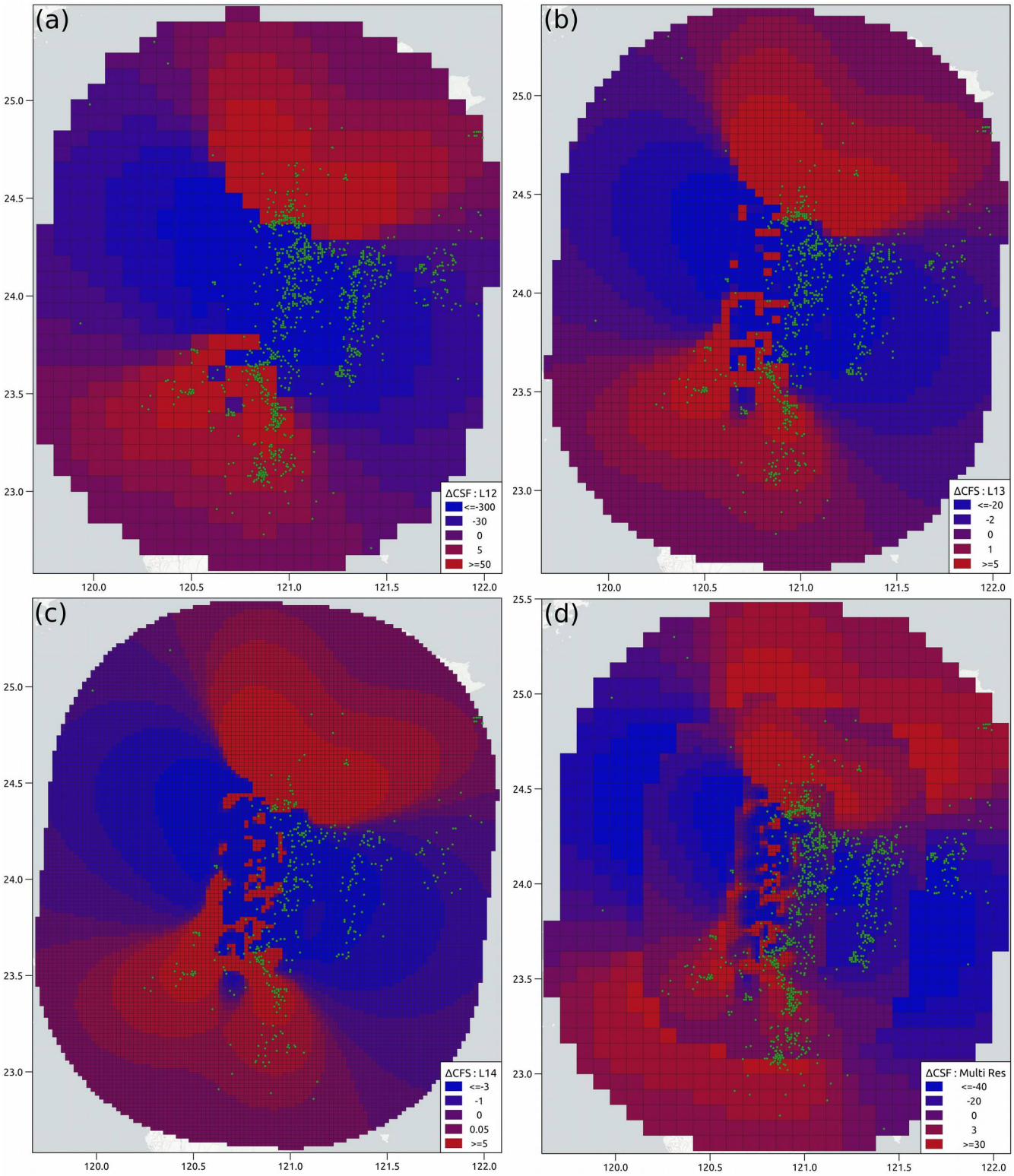

Figure S2: CFS aftershocks forecast model for 1999 Chi-Chi earthquake aggregated on the Quadtree grids of different resolutions. The forecast shown here is from 3D cells around depth 7.5km aggregated on: (a): single-resolution grid L12, (b): single-resolution grid L13, (c): single-resolution grid L14, (d): multi-resolution grid.

Figure S3:

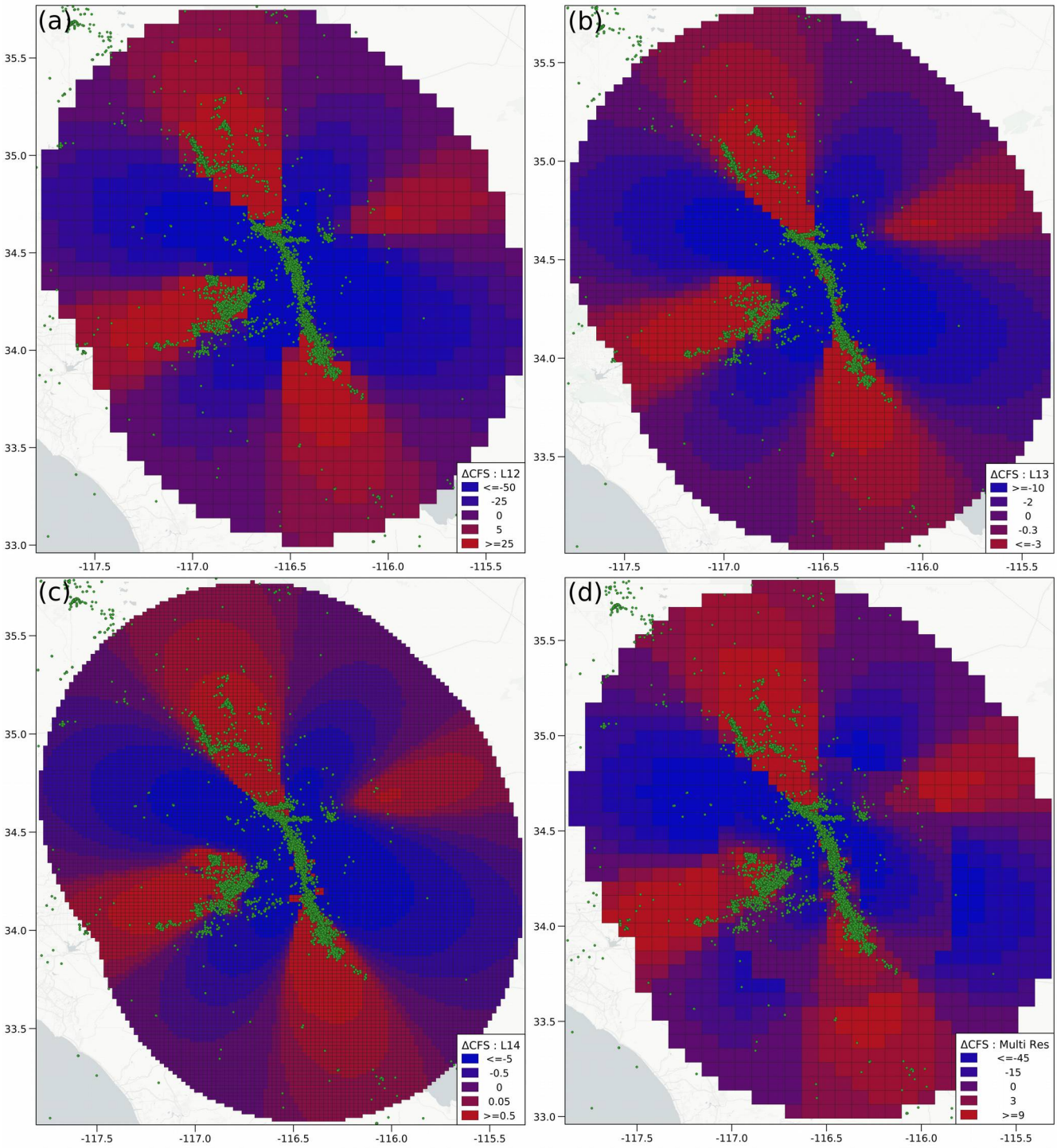

Figure S3: Coulomb aftershocks forecast model for Landers 1992 earthquake aggregated on the Quadtree grids of different resolutions. The forecast shown here is from 3D cells around depth 7.5km aggregated on: (a): single-resolution grid L12, (b): single-resolution grid L13, (c): single-resolution grid L14, (d): multi-resolution grid.