

## Study and analysis earthquake energy density

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We study aftershocks space region in china continues strong earthquakes cases. They have 65 earthquake cases about aftershocks space region. First we count earthquake energy by  $\log E = 1.5M_s + 4.8$ . Then we are statistical area and volume of aftershocks space distribution region. It result show area of aftershocks space distribution increase with magnitude, Fig 1. Volume of aftershocks space distribution doesn't change with magnitude, Fig 2. This phenomenon show earthquake is three dimension crake. Earthquake crake energy density doesn't change with different magnitude. If we carefully study curve volume of aftershocks space distribution and magnitude, they have small increase with magnitude. Earthquake rupture not only three crake but also fractal volume crake.



