

# Seismologist: Christchurch quake location surprising, more large quakes near city unlikely

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Though Tuesday's earthquake in New Zealand wasn't in itself surprising, the locality so close to southern New Zealand's largest city did catch many off guard, said a Texas Tech University geophysicist and seismologist.

An [earthquake](#) measuring 6.3 rocked Christchurch three miles from the city center, and news reports have estimated 75 deaths with more than 100 people still missing.

"The locality beneath Christchurch is definitely surprising, but everything else is not so surprising," said Hua-wei Zhou, the Pevehouse Chair and Professor of Petroleum Geophysics and Seismology in the Department of Geosciences. "This is the sixth aftershock measuring 5.0 or more since the last big earthquake on Sept. 3, 2010."

Zhou explained that while the Sept. 3, 2010, earthquake measured 7.0 in magnitude, it happened in a relatively rural area 30 miles west of Christchurch and didn't cause as much damage. Because of the earthquake's location and the fault's motion – a strike-slip motion with plates grinding horizontally with some vertical movement also – this may have intensified the damage in an already heavily populated area.

Because of the historical rarity of earthquakes in the city, Zhou predicted that the Christchurch area most likely wouldn't experience

another earthquake for several years to decades.

In May 2008, Zhou led a team of six graduate students to deploy 60 seismometers near the Three Gorges Dam after an earthquake measuring 7.9 struck the Sichuan province in Central China. Zhou's research interests include improving seismic imaging methods and mapping mantle and crustal seismic structures of various regions.

Provided by Texas Tech University

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