Coherency analysis of accelerograms recorded by the UPSAR array during the 2004 Parkfield earthquake - DTU Orbit (09/12/2018)

Coherency analysis of accelerograms recorded by the UPSAR array during the 2004 Parkfield earthquake
Spatial variability of near-fault strong motions recorded by the US Geological Survey Parkfield Seismograph Array (UPSAR) during the 2004 Parkfield (California) earthquake is investigated. Behavior of the lagged coherency for two horizontal and the vertical components is analyzed by separately examining the decay of coherency with frequency and distance. Assumptions, approximations, and challenges that are involved in estimation of the coherency from recorded data are presented in detail. Comparison of the UPSAR coherency estimates with coherency models that are commonly used in engineering practice sheds light on the advantages and limitations of different approaches to modeling the coherency, as well as on similarities and differences in the spatial variability exhibited by seismic ground motion arrays at different sites. © 2013 John Wiley & Sons, Ltd.

General information
State: Published
Organisations: Department of Civil Engineering, Section for Structural Engineering, University of California at Berkeley
Contributors: Konakli, K., Kiureghian, A. D., Dreger, D.
Number of pages: 19
Pages: 641-659
Publication date: 2014
Peer-reviewed: Yes

Publication information
Journal: Earthquake Engineering and Structural Dynamics
Volume: 43
Issue number: 5
ISSN (Print): 0098-8847
Ratings:
BFI (2018): BFI-level 2
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 3.35 SJR 1.997 SNIP 2.28
Web of Science (2017): Impact factor 2.807
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 2.91 SJR 2.244 SNIP 2.237
Web of Science (2016): Impact factor 1.974
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 3.08 SJR 2.681 SNIP 2.741
Web of Science (2015): Impact factor 2.127
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 3.25 SJR 2.976 SNIP 2.935
Web of Science (2014): Impact factor 2.305
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 2.93 SJR 2.449 SNIP 2.756
Web of Science (2013): Impact factor 1.951
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 2.19 SJR 2.705 SNIP 2.702
Web of Science (2012): Impact factor 1.898
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 2.46 SJR 2.621 SNIP 2.48
Web of Science (2011): Impact factor 1.778
ISI indexed (2011): ISI indexed yes