Spatial and Temporal Distribution of Large Aftershocks

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The space-time characteristics of larger aftershocks following to the earthquakes occurred in and around Japan since 1969 were investigated. We found that the epicentral

distance between the largest aftershock and its main shock tends to increase with the magnitude of the main shock. The distance-magnitude relation differs significantly between inland and oceanic earthquakes. In general the aftershock area is considerably larger for the oceanic earthquakes, the oceanic M6=+ aftershocks distribute in a wider area than the inland M5=+ aftershocks viewing in the scale of formula log L=0.5M-1.8, where L is the length of fault, and M is the magnitude of main shock. Concerning the occurrence time of large aftershocks, it is said that they are very likely to occur shortly after the main shock.

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