Comprehensive analysis of the March 7, 2019 Somogyszob, Hungary earthquake cluster

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A magnitude ML 4.0 earthquake struck southwest Hungary on March 7, 2019. The earthquake was reported to be felt in some 53 localities with maximum intensity V on the EMS scale. The earthquake was preceded by four foreshocks and followed by four aftershocks. The hypoDD solutions using differential travel times from waveform cross-correlation show significant improvements in event location. We were able to determine the moment tensor solutions for the main shock and one of the foreshocks and aftershocks, each representing thrust fault mechanism with a horizontal P-axis pointing towards N-NE. The obtained moment magnitudes range from Mw 1.5 to 3.8 with source radii between 100 and 500 m. The stress drop spans from 12 to 19 bars.