Development of Earthquake Disaster Simulator for Railways

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We have developed an earthquake disaster simulator for railways to assess seismic performance of the structure group continuously existing in a long section of the railway line. This simulator has functions to evaluate the wave propagation from the fault to the bedrock, the seismic responses of the subsurface ground and the structures on the line. The simulator has automatic modeling functions making use of the data obtained from each archive (faults/ground/structures), seismic response analysis functions and resultant visualization functions. Here, the development of the simulator and its calculation examples are shown.