

# Progress in RENATE-OD synthetic diagnostic and benchmark

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The RENATE Open Diagnostics has been upgraded with two main features: 1. Detailed noise modelling was added, and the effect of detector noise on the measured statistical properties of plasma fluctuations was studied. 2. Rate calculator module was added, motivated by the benchmark showing discrepancies at high beam energy.

The benchmark includes more-or-less complete set of data from BBNBI (both ADAS and Suzuki), CHERAB, FIDASIM, RENATE and RENATE-OD. Some test cases needed to be dropped, others show reasonably good agreement. Further plans are to be discussed.