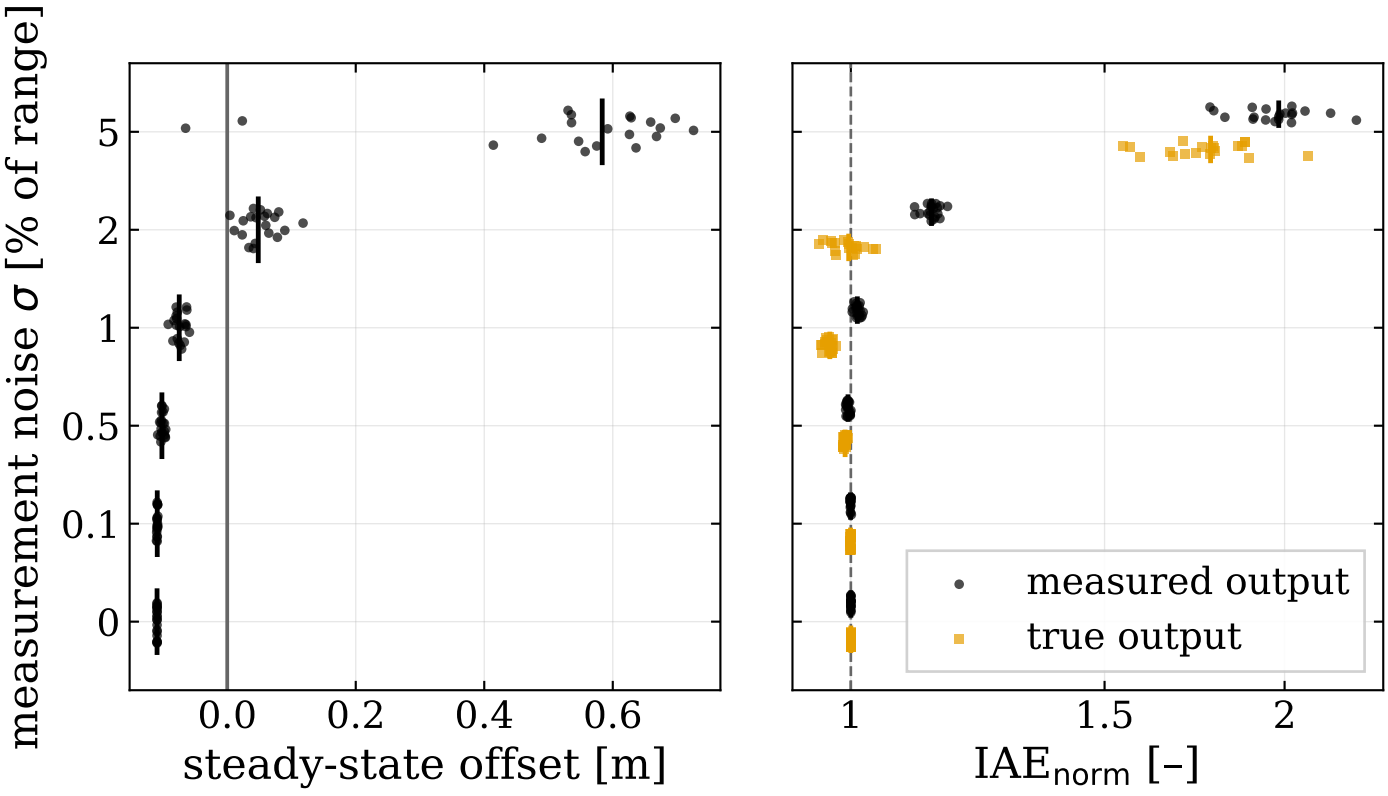
Cascaded two-tank: offset and tracking cost per noise level



One dot per run, 120 in total, jittered within its noise level. Left of the zero line the controller settles below the setpoint, right of it above. The offset bar is the median over the runs with a finite offset; the IAE bars rank non-finite runs worst, as the tables do. Each noise level carries two IAE rows: the measured output, which includes the sensor noise, and the noise-free plant output. Their gap is the cost the sensor alone adds.