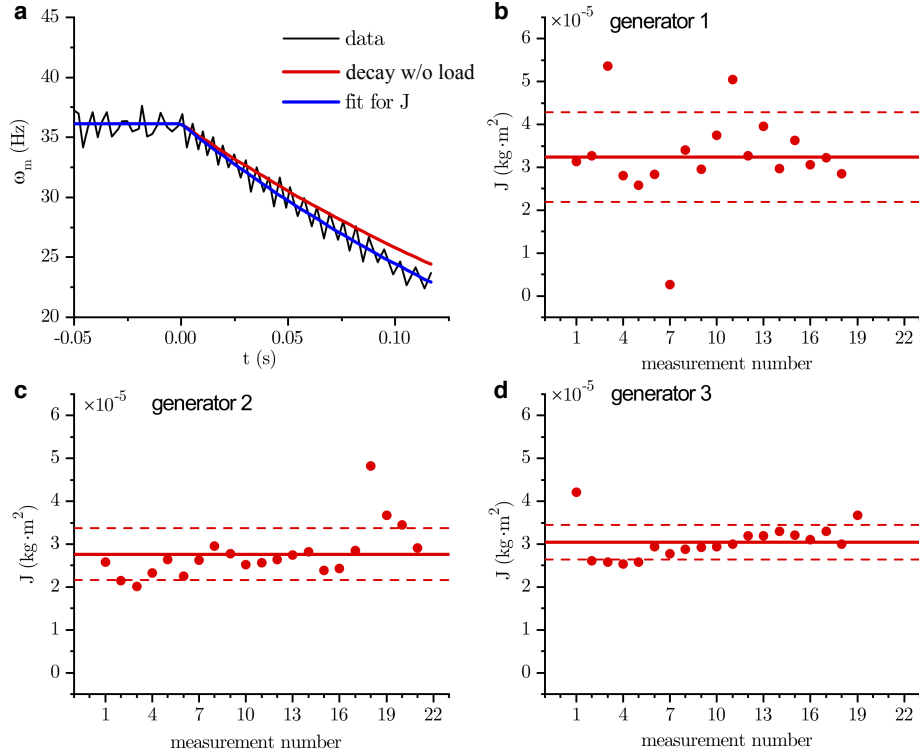


Supplementary Fig. 4: **Measurement of parameter β .** **a**, Typical fitting scenario, where the steady-state frequency, the turn-off time (shifted to $t = 0$), and the rate of deceleration β are fitted to the data from rotor frequency measurement. **b,c**, Measurements of the β value for generators 1 and 2, respectively. **d**, Measurements of the β values for generator 3 in the uniform (β_A , red dots) and non-uniform (β_B , blue squares) configurations. In **b–d**, the mean and standard deviation of the data points are indicated by the solid and dashed lines, respectively.



Supplementary Fig. 5: Measurement of parameter J . **a**, Decay of the measured rotor frequency from a typical run with a resistive load of $2\ \Omega$, along with the corresponding fit of the steady-state frequency, turn-off time (shown as $t = 0$ here), and parameter J . We also show as a reference the predicted decay without the load. **b–d**, Measurements of J for generators 1, 2, and 3, respectively. In **b–d**, the mean and standard deviation of the data points are indicated by the solid and dashed lines, respectively.