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## Microwave instability driven by terahertz-scale resistive-wall impedance in Diamond-II

*Wednesday 4 June 2025 16:00 (2 hours)*

Vacuum vessels of the Diamond-II storage ring feature non-evaporable getter (NEG) coating which cause a resonator-like peak in the longitudinal impedance. This work demonstrates how different parameters of NEG can increase momentum-spread growth. It is shown that the spread of the coating-layer thickness amongst vacuum vessels results in significantly reduced momentum-spread growth. Insertion devices featuring rectangular geometry and NEG coating can cause a multi-peak structure of the longitudinal impedance which can drive additional momentum-spread growth.

### Footnotes

### Paper preparation format

LaTeX

### Region represented

Europe

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