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## Beam centroid studies at the Canadian Light Source

*Tuesday, 21 May 2024 16:00 (2 hours)*

The Canadian Light Source (CLS) storage ring RF frequency varies on timescales of seconds to days. Over approximately 20 years it has drifted from its design value. We outline and discuss our efforts to identify, disentangle and mitigate the potential sources of variations in the RF frequency on various timescales. These sources include the building temperature regulation, the orbit correction algorithm and the dipole power supply. Further, orbit correction generates an undesirable amount of beam noise through the dispersion correction. We have ongoing efforts to understand and improve orbit correction and remove the noise it propagates into the RF frequency.

### Footnotes

### Funding Agency

### Paper preparation format

LaTeX

### Region represented

North America

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