Contribution ID: **415** Contribution code: **TUYD1** Type: **Invited Oral Presentation**

Fabrication and testing of corrugated waveguides for a collinear wakefield accelerator

Tuesday, 9 May 2023 11:00 (30 minutes)

Cylindrical corrugated waveguides (CWGs) for accelerators and light sources have actively been studied in the past decade theoretically and experimentally. CWGs with a planar geometry have been successfully employed to cancel linear energy correlation in the electron bunch and thus to enhance the performance of free electron lasers (FELs). Cylindrical CWG have been proposed as a passive streaker for a time-resolved diagnostic of the electron bunches, for a subterahertz FEL, and for a compact high repetition rate multi-user X-ray FEL This paper will describe the fabrication of a small-size precision cylindrical CWG and comparison of beam measurements with predictions.*

* Phys Rev Accel Beams 25, 031302 (Feb 2022)

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Footnotes

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