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Longitudinal Feedback System for Suppression of FEL Lasing Drift at Dalian Coherent Light Source

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Dalian Coherent Light Source (DCLS) is a free-electron laser (FEL) user facility. As a user facility, it is vital to provide the long-term stable FEL light, namely drift suppression. DCLS is a comprehensive integration of various devices, any key part of perturbation will result in drift of FEL lasing. Beam-based feedback (BBF) is an effective method to suppress the drift. This paper will introduce the design and the operational results of beam-based longitudinal feedback system (LBBF) at DCLS, especially its remarkable improvement on the drift suppression of FEL lasing.

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Footnotes

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Primary authors: SUN, Jitao (Dalian Institute of Chemical Physics); YU, Yong (Dalian Institute of Chemical Physics); LI, Xinxin (Dalian Institute of Chemical Physics); XU, Bo (Dalian Institute of Chemical Physics); YANG, Jiayue (Dalian Institute of Chemical Physics); DING, Hongli (Dalian Institute of Chemical Physics); SHI, Lei (Dalian Institute of Chemical Physics); WANG, Qian (Dalian Institute of Chemical Physics); WANG, Qianhan (Dalian Institute of Chemical Physics); YIN, Feiyang (Dalian Institute of Chemical Physics); WU, Guorong (Dalian Institute of Chemical Physics); ZHANG, Weiqing (Dalian Institute of Chemical Physics)

Presenter: SUN, Jitao (Dalian Institute of Chemical Physics)

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