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Report from PWFA-Linac Working Group of the 10 TeV Wakefield Collider Design Study

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The 10 TeV Wakefield Collider Design Study [1] aims to produce a self-consistent, start-to-end design of a 10 TeV-center-of-mass linear collider based on wakefields technology. One of the considered options for driving the main linac is beam-driven plasma wakefield acceleration (PWFA). The goal of the PWFA-Linac Working Group is to identify the main challenges and showstoppers, and to define a set of global metrics to optimize the proposed solutions.

We summarize the recent discussions and present some basic considerations on the PWFA Linac design.

[1] S. Gessner et al., arXiv:2503.20214 (2025)

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