



Contribution ID: 20

Type: **not specified**

## Plasma-discharge undulator

*Thursday, 29 September 2016 18:05 (15 minutes)*

The plasma wake-field acceleration (PWFA) is the promising type of acceleration, that recently had shown not only ability to produce a high energy beams at short distance, but also increasing quality of the beam in terms of energy spread, emittance and stability. Increasing quality of the PWFA beams opens for us an opportunity to create a compact FEL type sources of radiation. In this work we studied a possibility to use a capillary plasma-discharge, as cheaper substitution for conventional magnetic undulators, to produce a narrow band high brightness radiation.

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**Session Classification:** S5.2: Novel sources: FEL/Laser/Plasma channels