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A proposal of superconducting RF electron gun with the latest 4K superconducting technology for CW high brightness electron beam generation

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A superconducting accelerator is an excellent technology that can efficiently accelerate high-current beams and is being applied to free electron lasers and next-generation linear electron-positron colliders such as ILC. A superconducting RF electron gun is technically suitable for high-quality high-current beam generation, but there are not many examples in practical use, such as the ELBE RF Gun in HZDR. We present a proposal of a superconducting RF gun based on the latest 4K superconducting technology and a system that can generate continuous high-brightness beams.

Footnotes

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LaTeX

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Asia

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