



WG 5: ERL Applications

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ERL applications talks

- ERL-based Electron-Ion Colliders, V. Ptitsyn
- The Femto-Science Factory: A Multi-turn ERL-based Light Source, T. Atkinson
- 10 Years of ALICE: From Concept to Operational User Facility, P. Williams
- Design work of the ERL-FEL as the high intense EUV light source N. Nakamura
- Science cases on ERL as a synchrotron light source, H. Kawata
- ERL as FEL driver, Y.Jing
- ERL facility at CERN for applications, E. Jensen
- A Lepton Energy Recovery Linac Scalable to TeV, V. Litvinenko
- Current Status of the MESA Project, R.Heine
- Laser Compton Sources Based On Energy Recovery Linacs , R. Hajima
- Using ERLs for Coherent electron Cooling, I.Pinayev
- ERL as high intensity mono-energetic γ -ray sources, V. Yakimenko
- Ultra-High Flux of X-ray/THz Source based on Asymmetric Dual Axis Energy Recovery Configuration, I. Konoplev
- ERL for low energy electron cooling at RHIC (LReC), J.Kewisch
- An Inverse Compton Scattering Beamline for High-Energy, Time-Resolved X-ray Scattering Studies of Materials, G.Hoffstaetter
- Nuclear and High-Energy Physics Experiments with Cornell's FFAG ERL, M. Perelstein

"Relevant to ERL applications" talks

- actually all talks at this workshop are relevant and important for one of foreseen applications

Goals/Charge

- Discuss applications which require ERLs or can benefit from ERLs
- Discuss strengths & weaknesses of ERLs as accelerator used for applications
 - Example of possible weaknesses: (a) difficulty with radiation protection/ beam loss limitations; (b) need to bend electrons and suffer SR losses and effects....
 - Example of obvious advantages: (a) energy efficiency; (b) ability of providing fresh beam very high power; (c) preserve polarization ...
- Discuss set(s) of critical parameters which ERLs should demonstrate to become of interest for various applications
 - High energy/nuclear physics (including γ -ray sources)
 - Light sources/FELs
 - Material science/technology
 - Industry (including XUV lithography)
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