Linac-Based Short Wavelength FELs, A. RENIERI,

ENEA-INN Frascati - The main issues related to the realization of short wavelength (i.e. UV, VUV and X) free-electron lasers (FEL) driven by electron beams generated by linacs are investigated. The State of the Art of the main FEL components (accelerator, undulator and optical devices) critical for short wavelength operation is presented. The scenario of existing and planned devices is discussed and compared with the need of experimental test check points for the schemes proposed fro the realization of very short wavelength radiation sources.