

LIST OF ABBREVIATIONS

Abbreviation	Details
FELs	Free Electron Lasers
FELA	Free Electron Laser Amplifier
P-FELA	Pulse Free Electron Lasers
WP-FELs	Whistler Pumped Free Electron Lasers
CFELs	Cerencov Free Electron Lasers
VIRCATOR	Virtual Cathode Oscillator
UBITRON	Undulated Beam Interaction elecTRON
TWTs	Travelling wave tubes
VTDs	Vacuum Tube Devices
SASE	Self-Amplified Spontaneous Emission
SR-FELs	Store-Ring FELs
TE	Transverse electric
TM	Transverse Magnetic
TEM	Transverse electromagnetic
FIR	Far Infrared
RF	Radio Frequency
EM	Electromagnetic
THz	Tera Hartz
GHz	Giga Hertz
MHz	Mega Hertz
Hz	Hartz
HPM	High Power Microwave

IREB	Intense Relativistic Electron Beam
J	Joules
KA	Kilo Ampere
KV	Kilo Volt
MV	Mega Volt
LINAC	Linear Accelerator
GW	Gega Watt
MILO	Magnetically Insulated Line Oscillator
MITL	Magnetically Insulated Transmission Line
MW	Megawatt
NRL	Naval Research Laboratory
ns	Nanosecond
PIC	Particle-In-Cell
CST	Computer Simulation Technology
RBWO	Relativistic Backward Wave Oscillator
FSOC	Free Space Optical Communication
SWS	Slow Wave Structure
FWS	Fast Wave Structure
CR	Compton Regime
RR	Raman Regime
CRR	Collective Raman Regime