



Introduction of the High Intensity Gamma-ray Source

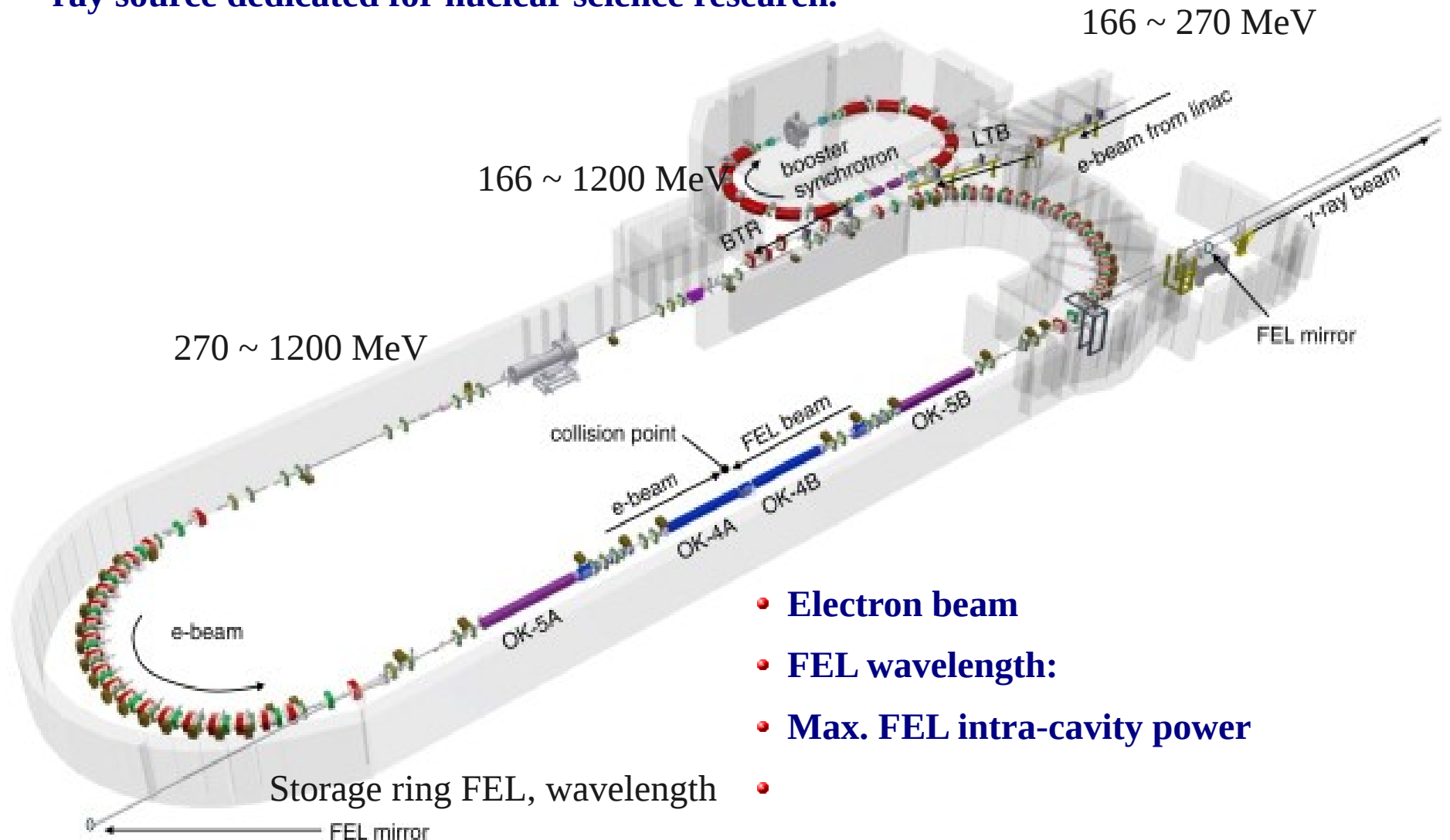
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About HIGS



- **The High Intensity Gamma-ray Source is a Compton-scattering gamma-ray source dedicated for nuclear science research.**



- **Electron beam**
- **FEL wavelength:**
- **Max. FEL intra-cavity power**
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Parameters of the Duke Storage Ring

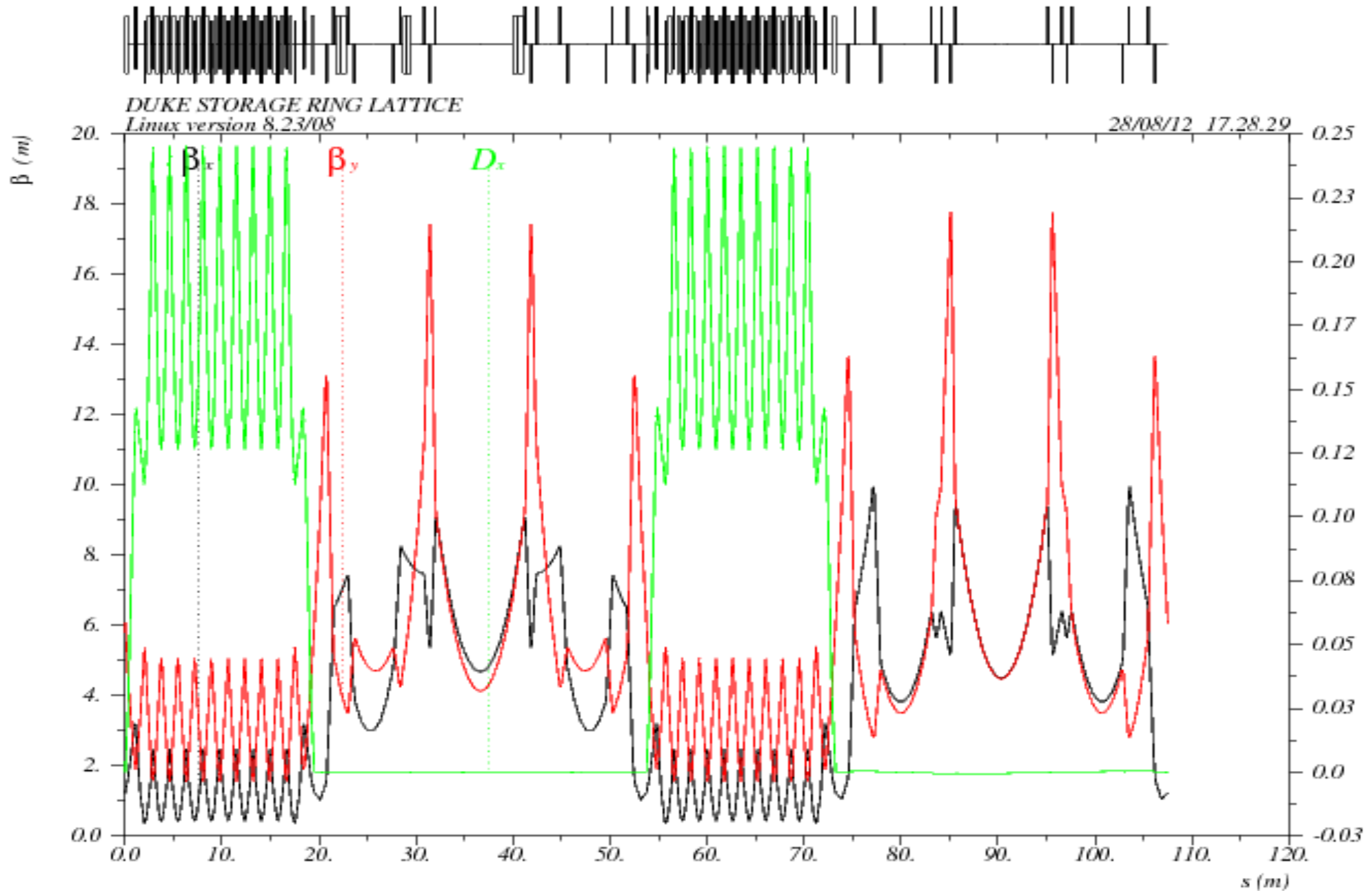
Electron beam energy	167 MeV – 1.2 GeV	
Circumference	107.46 m	
RF cavity frequency	178.56 MHz	
Betatron tunes	9.11/4.18	
Max. stored beam current		
Momentum compaction factor	0.0086	
Damping time (@1.2 GeV)	10/	
Bunch length		
Emittance	28 nm-rad	
Synchrotron radiation energy/turn (@1.2 GeV)	87.3 keV	
FEL cavity length		
Optical Klystron config:	OK-4	
FEL wavelength	OK5	
Gamma-ray beam energy		
Gamma-ray beam intensity		

Parameters of the Booster



Electron beam energy	167 MeV – 1.2 GeV	
Circumference		
RF cavity frequency		
Betatron tunes		
Max. stored beam current		
Momentum compaction factor		
Damping time (@1.2 GeV)		
Bunch length		
Emittance		
FEL cavity length		
FEL wavelength	OK5	
Gamma-ray beam energy		
Gamma-ray beam intensity		

Beta-function



$\delta s / p_{vc} = 0.$

Table name = TWISS