

Coherence properties of the radiation from x-ray free electron lasers

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The talk will highlight the following topics:

- Coherent radiation of electron beams: Introduction.
- Free electron laser: Basic principles.
- Start-up of FEL process from shot noise: Self-Amplified Spontaneous Emission (SASE) FEL.
- Temporal and spectral properties of the fundamental and higher harmonics of the radiation from SASE FEL.
- Transverse coherence of the radiation from SASE FEL.