## Channeling 2016



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## Radiation from a charge rotating inside a cylindrical grating

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We investigate the spectral-angular distribution for the radiation emitted by a point charge rotating inside a cylindrical grating with conducting strips. Two types of the radiation processes are realized: synchrotron and Smith-Purcell radiations. Their relative contributions to the total radiation intensity are discussed in various asymptotic regions of the parameters describing the diffraction grating and for large harmonics. The region of the parameters is specified for which the interference effects between the synchrotron and Smith-Purcell radiation is essential.

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