Theory of thermal radiation from isolated neutron stars

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The theory of formation of thermal spectra of isolated neutron stars is reviewed with emphasis on the case where a strong magnetic field exists at the stellar surface. Characteristic spectral features and their dependences on stellar parameters are considered. It is shown how the physics of dense, strongly magnetized plasmas manifests itself in the thermal radiation of isolated neutron stars. Topical problems related to interpretation of modern observations of such thermal radiation are discussed.

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