



Contribution ID: 16

Type: not specified

## Magnetic field of strange stars with rotating superfluid core

Friday, 2 October 2015 09:40 (40 minutes)

The generation of a magnetic field and its distribution inside a rotating strange star are discussed. The difference between the angular velocities of the superfluid and superconducting quark core and of the normal electron plasma increases because of spin-down of the star and this leads to the generation of a magnetic field. The magnetic field distribution in a star is found for a stationary value of difference of angular velocities of these components. In all parts of the star this field is determined entirely by the total magnetic moment  $M$  of the star which can vary from  $10^{31}$ - $10^{34}$  G-cm<sup>3</sup> for some models of compact stars.

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