

# Vortices in neutron ${}^3P_2$ superfluids in neutron stars

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**場所** : 本館 2 階 227C 物理学系輪講室および Zoom

**Link** : [https://zoom.us/meeting/register/6aN7eizNRL--W58\\_kNle8A](https://zoom.us/meeting/register/6aN7eizNRL--W58_kNle8A)

## 概 要

The interior of a neutron star is expected to be occupied by neutron superfluids. While the outer region should be filled by  ${}^1S_0$  superfluids consisting of a conventional singlet pairs of neutrons, the inner core may be  ${}^3P_2$  superfluids consisting of a condensate of spin-triplet p-wave Cooper pairs of neutrons with total angular momentum  $J = 2$ . This has rich topological structures in both momentum and real spaces: it is a topological superfluid and admits various topological defects such as half-quantum non-Abelian vortices, domain walls, surface topological defects, boojums, and so on. I will give a review of the current status of  ${}^3P_2$  superfluids with a particular attention to vortices and possible applications to pulsar glitches.

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