



## SÉMINAIRE DE PHYSIQUE CORPUSCULAIRE

**SUJET:** Latest T2K results: leptonic CP violation in sight ?

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Boulevard d'Yvoy, 1211 Genève 4

### RÉSUMÉ:

T2K is a long-baseline neutrino experiment that provides World leading measurements of neutrino oscillations. After a long data taking with a muon neutrino beam, anti-neutrino data have been collected since 2014, giving the most sensitive comparison to date.

The latest results will be presented, focusing on the first search of CP violation in the leptonic sector performed for the first time ever by jointly analyzing neutrino and anti-neutrino data.

The T2K long-baseline neutrino experiment is in the process of proposing a follow-up experiment, T2K2, with higher beam intensity, upgraded detectors and improved sensitivity to neutrino properties. This would allow for a  $3\sigma$  discovery of CP violation in the case of maximum CP violation, after 10 years of data-taking.

Sensitivities to CP violation with T2K2 will be discussed in this talk, as well as possible detector upgrades."

INFORMATION : <http://dpnc.unige.ch/seminaire/annonce.html>

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