

# The PTOLEMY experiment to look at the first second of the Universe

*Wednesday 29 July 2020 19:15 (15 minutes)*

The PTOLEMY project aims at accomplishing the Conceptual Design of a detector capable to detect Cosmological relic neutrinos.

The idea is based on a novel idea where neutrinos of vanishing kinetic energy can be detected by means of a target of unstable atoms. In particular the Tritium was chosen for favourable values of cross section and lifetime.

The project is supported by an international collaboration which recently published a paper, among others, where major breakthroughs in the field of electrostatic particle filter have been published.

This is not the only novel concept exploited in the concept of the PTOLEMY detector but also monatomic layers of graphene as support of T atoms is a very innovative idea with relevant new features in terms of energy definition of the electron from the T decay.

In the talk all most relevant aspect of the project will be reported

## I read the instructions

### Secondary track (number)

08

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