

**XV Neutrino Telescopes Workshop
Palazzo Franchetti – Venice, 11-15 March 2013**

Poster Session – Submission of Abstract

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Title of the Poster: Target Tracker detector of the OPERA experiment

Abstract Text: (no longer than 800 characters)

Target Tracker (TT) is the most important electronic detector of the hybrid setup of the OPERA experiment. Built of 30000 plastic scintillator strips, this detector is a main tool for the neutrino interaction registration in real time and for the vertex location for the further detailed analysis of the interaction in nuclear photoemulsion. It also provides a neutrino interaction trigger for the readout of the whole detector, and is used as a calorimeter for the event analysis. High detection efficiency (~99% for a mip) is stable since TT installation in 2006, that shows no significant ageing of scintillator. Here we present a description of the detector, its main characteristics, methods and algorithms used for the data processing, discuss a performance of the detector for the vertex location.

Summary: (no longer than 400 characters, Insert a tag, key word, topic, etc.)

Target Tracker detector of the OPERA experiment is presented. Its description, main features, performance are provided. Methods and algorithms of the data analysis aiming the neutrino vertex location are discussed. During 7 years of operation the detector demonstrated closed to 99% efficiency with no degradation.

Key words: neutrino oscillations, electronic detectors, plastic scintillators.

Kindly follow the instructions above and send the abstract in a .pdf file to the local organizing committee e-mail address. Response will be sent to the submitter's e-mail address indicated above, by February 13th. Posters will be exhibited all week long at the workshop site. Discussion will take place on Thursday 14th, during the Poster Party. At least one author must be available for "question-answer" time. Best 3 posters will be awarded on Friday 15th, during the closing plenary session of the workshop.