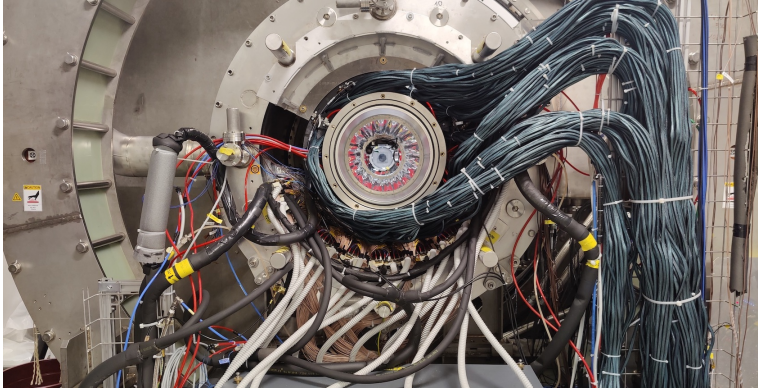


IN THE SEARCH FOR NEW PHYSICS AT THE INTENSITY FRONTIER: A FIRST RESULT FROM THE MEG II EXPERIMENT



In a seminar at the Paul Scherrer Institut (PSI) in Switzerland, the MEG II collaboration, in which INFN takes part, presented on October 20th its first results, based on data collected in 2021. The results are reported on a paper [published on arXiv](#) and submitted to the European Journal of Physics C. Based at PSI, the MEG II experiment searches for the decay of the positive muon into a positron and a photon, a kind of Holy Grail in

Particle Physics. This decay has been searched for since many years by different experiments but never observed.

No significant signal events of the searched decay have been observed compared to the expected background and an upper limit on the probability of this process has been set. Combined with the result from the [previous experiment](#) [previous experiment](#) MEG, it provides the most stringent limit up to date in the world.