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## The CGEM-IT of the BESIII experiment: project update and test results in magnetic field

*Thursday, 18 February 2016 18:00 (25 minutes)*

The BESIII experiment is a multi-purpose detector operating on the electron-positron collider BEPCII in Beijing. Since 2008, the world's largest sample of  $J/\psi$ ,  $\psi'$  were collected. Due to increasing luminosity, the inner drift chamber is showing signs of ageing. In 2014, an upgrade was proposed by the Italian collaboration based on the Cylindrical Gas Electron Multiplier (CGEM) technology, developed within the KLOE-II experiment, but with several new features and innovations.

In this talk, an overview of the project will be presented. Preliminary results of a beam test will be shown, with particular focus on the detector performance in magnetic field, with different configuration of electric field and of gas mixture. An introduction to a new readout mode, the microTPC readout, will be also presented.

The project has been recognized as a Significant Research Project within the Executive Programme for Scientific and Technological Cooperation between Italy and P.R.C. for the years 2013-2015, and more recently has been selected as one of the project funded by the European Commission within the call H2020-MSCA-RISE-2014.

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