



**HEP 2013
Stockholm
18-24 July 2013**



Contribution ID: 155

Type: **Poster Presentation**

The Air Microwave Yield (AMY) experiment - A laboratory measurement of the GHz emission from extensive air showers

The AMY experiment aims to measure the Microwave Bremsstrahlung Radiation (MBR) emitted by air-showers secondary electrons accelerating in collisions with neutral molecules of the atmosphere. The measurements are performed using a beam of 510 MeV electrons at the Beam Test Facility (BTF) of Frascati INFN National Laboratories. The goal of the AMY experiment is to measure in laboratory conditions the yield and the spectrum of the GHz emission in the frequency range between 1 and 20 GHz. The final purpose is to characterize the process to be used in a next generation detectors of ultra-high energy cosmic rays. A description of the experimental setup and the first results will be presented.

Primary author: LOUEDEC, Karim (LPSC, CNRS/IN2P3, UJF-INPG)

Co-author: COLLABORATION, AMY (AMY Collaboration)

Presenter: LOUEDEC, Karim (LPSC, CNRS/IN2P3, UJF-INPG)

Track Classification: Astroparticle Physics