Summary

- **The calibration system for the MU2E experiment is composed of many pieces:**

→ **A radioactive source (Caltech)** that in 5' illuminate with 6 MeV photons each calorimeter cell. This takes under control the response drop both for irradiation of crystals and sensors. It also allows to perform a fast channel by channel equalization. This calibration will be done weekly.

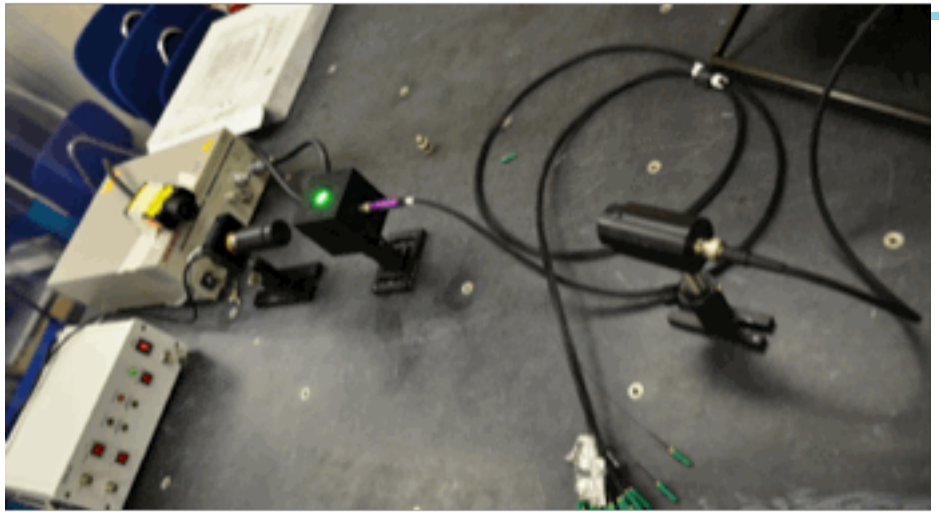
→ **A LASER system (INFN)** that allows to takes under control the fast gain changes of the SiPMs, the timing offsets and to make a fast control of the photosensor resolution (both in charge and in time)

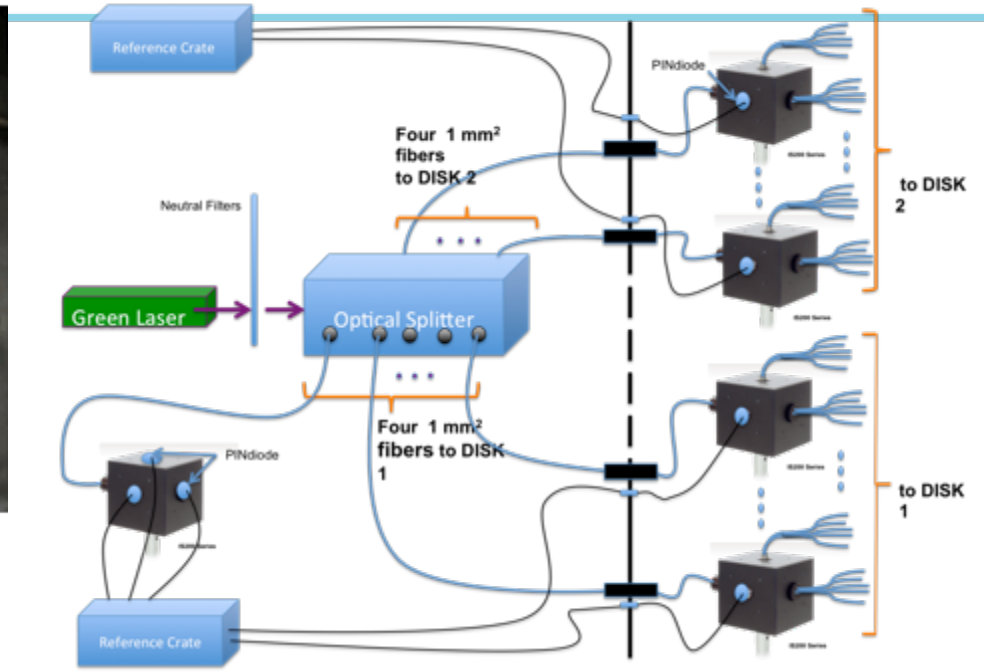
→ The laser will use a green wavelength in order to operate in a region far away from the 310 nm where irradiation issues on the crystal will deteriorate the transmittance.

→ The laser will be run continuously (< 1 Hz) in the beam off period.

→ **IN-Situ calibration tools** provided by Cosmic Rays, π^+ → e+ ν and DIO (decay in orbit) events.

Laser system status





- Design of the laser distribution system done
- Prototype test with 50 fibers' bundle carried out successfully
- Laser choice and design of laser optics for primary splitting underway
- Test of the monitoring system not yet done
- Engineering of the fiber routing and fibers' head in progress
- A step forward expected in conjunction with Module-0 assembly