# Fermilab **ENERGY** Office of Science



#### **MicroBooNE Status Report**

Simone Marcocci Fermilab

AEM Meeting 7th August 2017

# **Snapshot of MicroBooNE's shutdown schedule**

- Summary for July:
  - Studies on supernova stream and DAQ
  - Cryogenics
    maintenance
- MicroBooNE continues to staff 24/7 shifts throughout the summer shutdown
- We are on track to be ready when the beam comes back

 ~3 weeks of off-beam data scheduled at the end of shutdown



### **Cryogenics maintenance**

• The cryogenics team:

#### Mike Zuckerbrot, Frederick Schwartz, Mike Geynisman and Kathrine Cipriano

working around the clock for a few weeks to bring MicroBooNE back to stable operations. Thank you!

- The problems were **understood** (Ar condenser)
- Aiming for pre-shutdown stability
- Soon operations will be over: the current plan is then to wait at least 24h to be sure of complete stability
- Ramp the detector HV up and resume taking LAr purity data



## **Supernova stream and DAQ studies**

- SN stream commissioning:
  - the **bottleneck** in the readout+DAQ chain has been unambiguously **identified**
  - clear plan on how to move forward
- An offline assembler for SN data was developed (ready for data analysis!)
- Sketched out a plan for responding to SNEWS alerts
- Opportunistic diagnostic runs to **enhance** the allowable trigger **rate**

### **Other items/next weeks**

- Next activities mainly related to noise mitigation studies/hardware improvements (Mike Matulik)
- Plan to replace the PMT HV power supply and investigate the last source of noise in the detector ("zig-zag" noise)





- Cryogenics maintenance is almost over and returning to a metastable state
- DAQ bottleneck identified and being solved (SN stream and enhanced trigger rate)
- Next weeks mainly dedicated to **noise investigation** activities
- Shifts constantly 24/7, opportunistic DAQ studies continue
- ~3 weeks of off-beam data data taking planned right before the shutdown is over

