Code:

wrote Readout class function

wrote main function BasicReadout that reads from multimeter for a given duration and writes data to timestamped file in harddrive

/Users/cosmology/Google Drive/Projects/radiometer/Data

wrote Jupyter notebook to plot the data

Troubleshooting

Tried to fix the step offset of the voltage that appears between measurements where not reading changed cables between multimeter and power meter

seemed that the offset was smaller and linear today. don’t know why maybe because of the change of cables

Measurements

Measured some basic situations without eccosorb to study offset and overall evolution

Measured a few runs with eccosorb cold (using dry ice): **2016-11-04\_15/42/04\_Readout**

We see a nice logarithmic/exponential increase of radiation with time. this is attributed to the increase of temperature

Tried just dry ice in from to the horn and some eccosorb without aluminum behind it: **2016-11-04\_15/37/38\_Readout**

the voltage was large, around same values as room temperature and there was a small decay that suggested some cooling

overall this didn’t work well, maybe if we used aluminum sheet also

TO DO:

Write code to add header to the files with data

Start writing analysis functions (suppose we have T):

how is data turned into temperature data? and how are all time streams turned into one datapoint?