

EMC TOUSCHEK

BACKGROUND



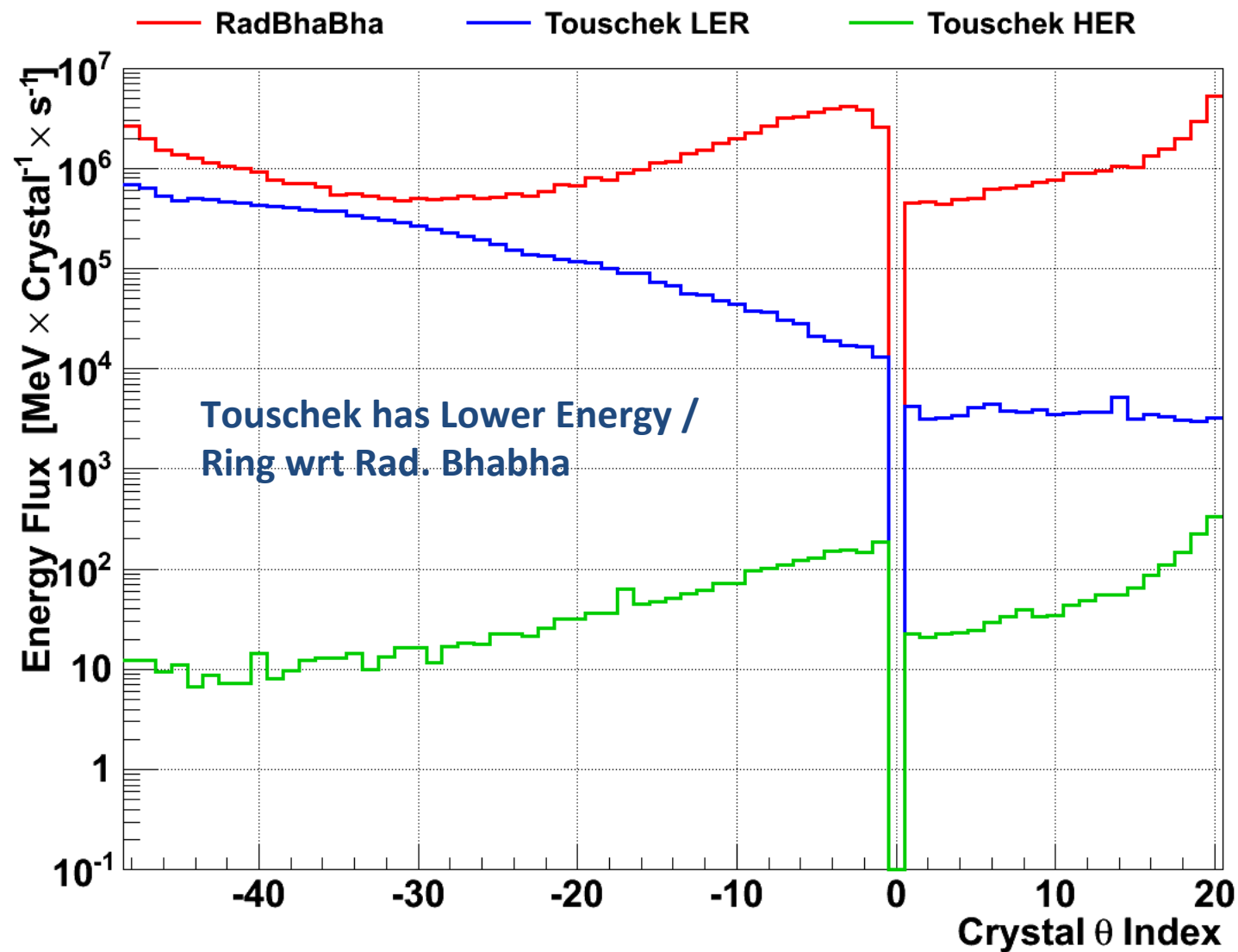
Background EVO Meeting
19/10/2011

S. Germani
INFN Perugia

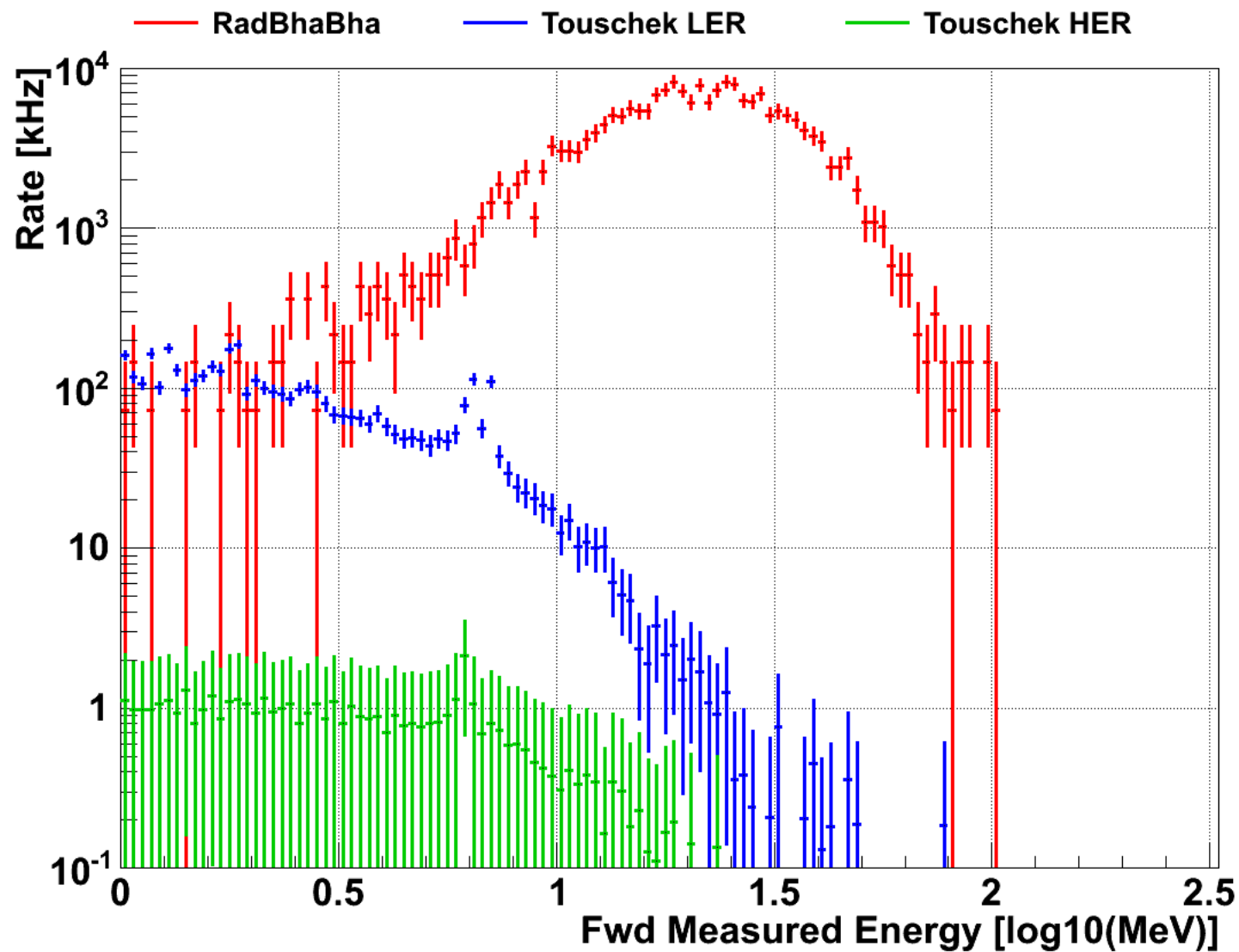
OUTLINE

- Compare Energy Spectra and Rates for
 - LER Touschek
 - HER Touschek
 - Radiative Bhabha
 - Assuming 1 bunch crossing/4.644 ns

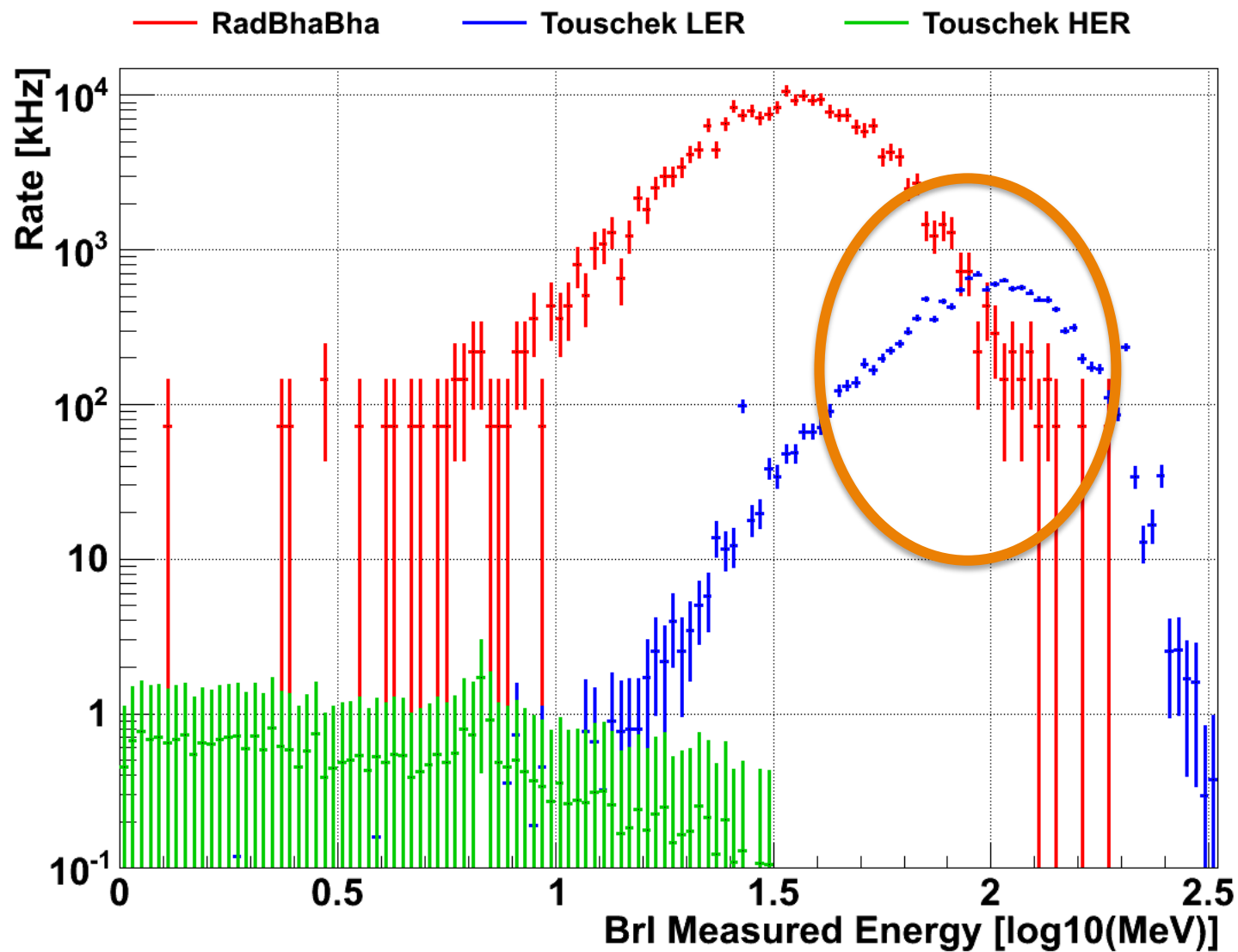
ENERGY FLUX VS THETA



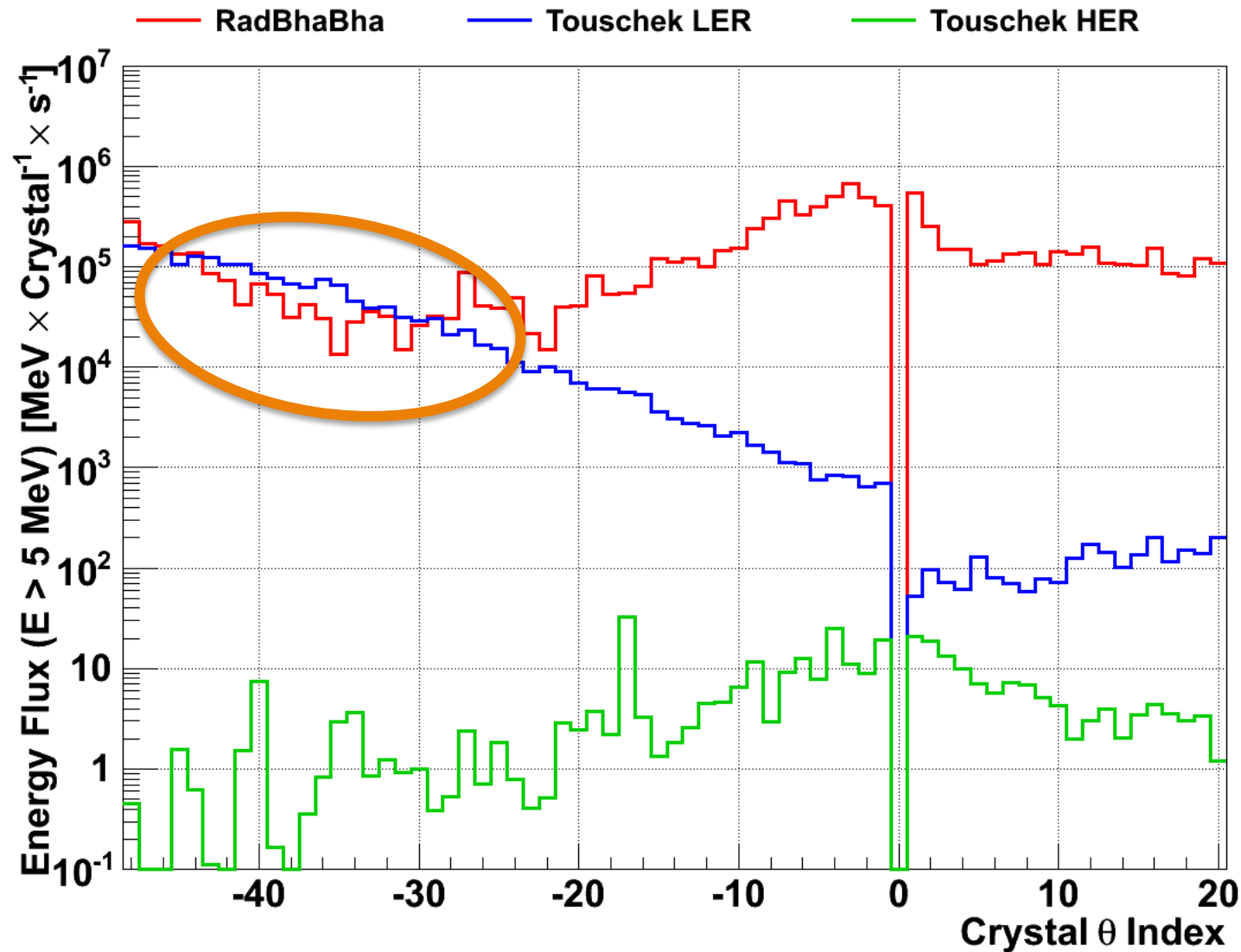
FWD ENERGY



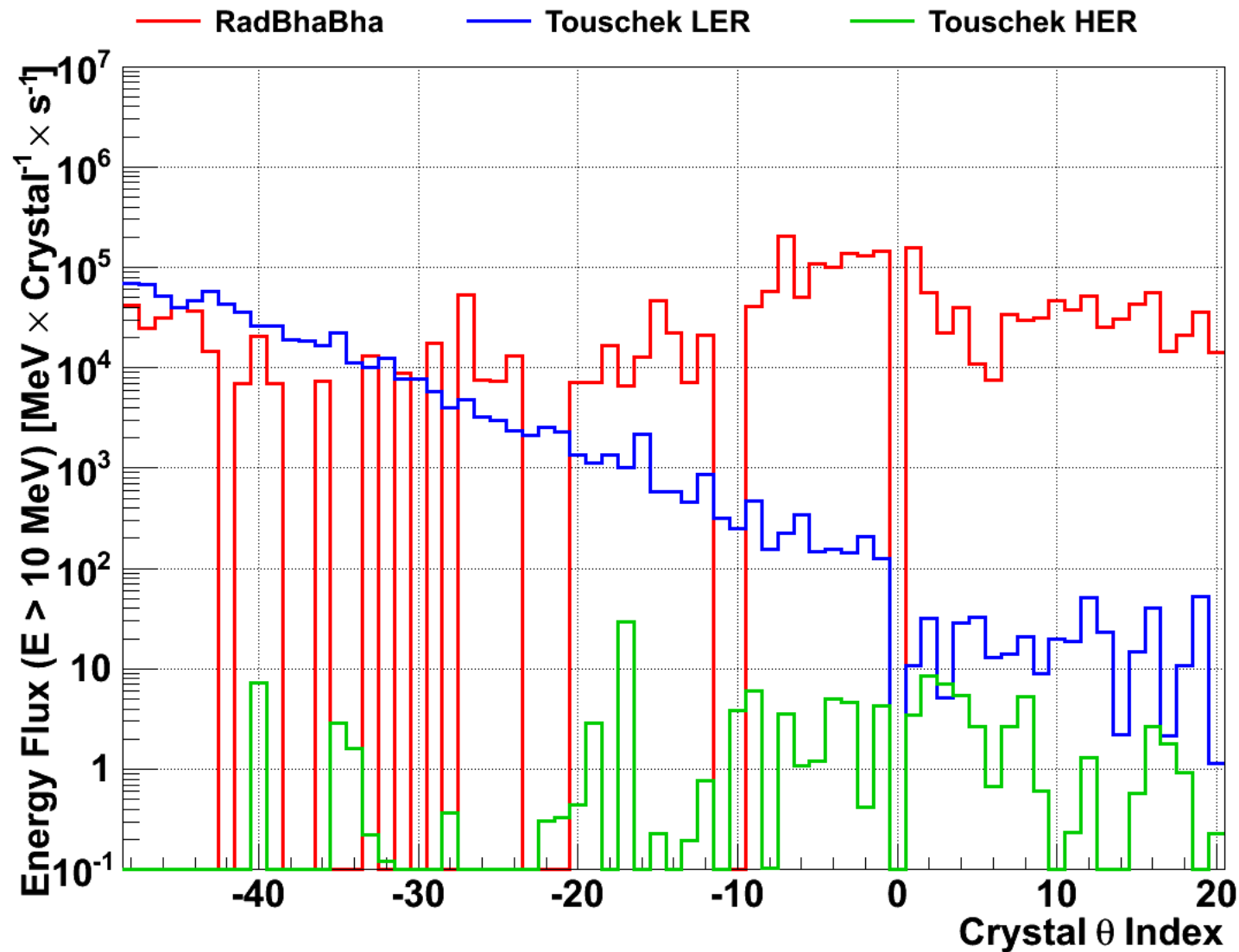
BARREL ENERGY



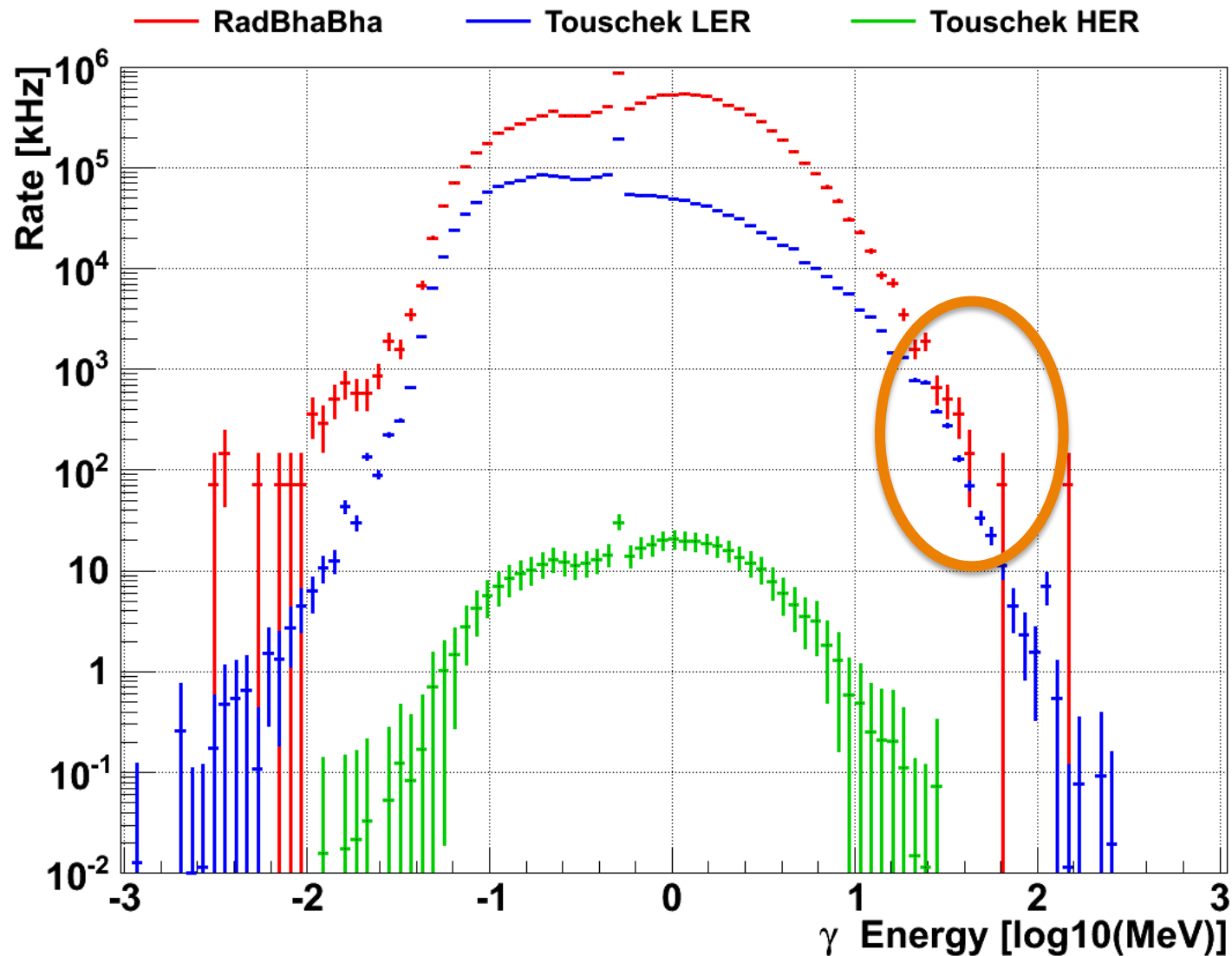
ENERGY FLUX VS THETA – $E > 5$ MeV



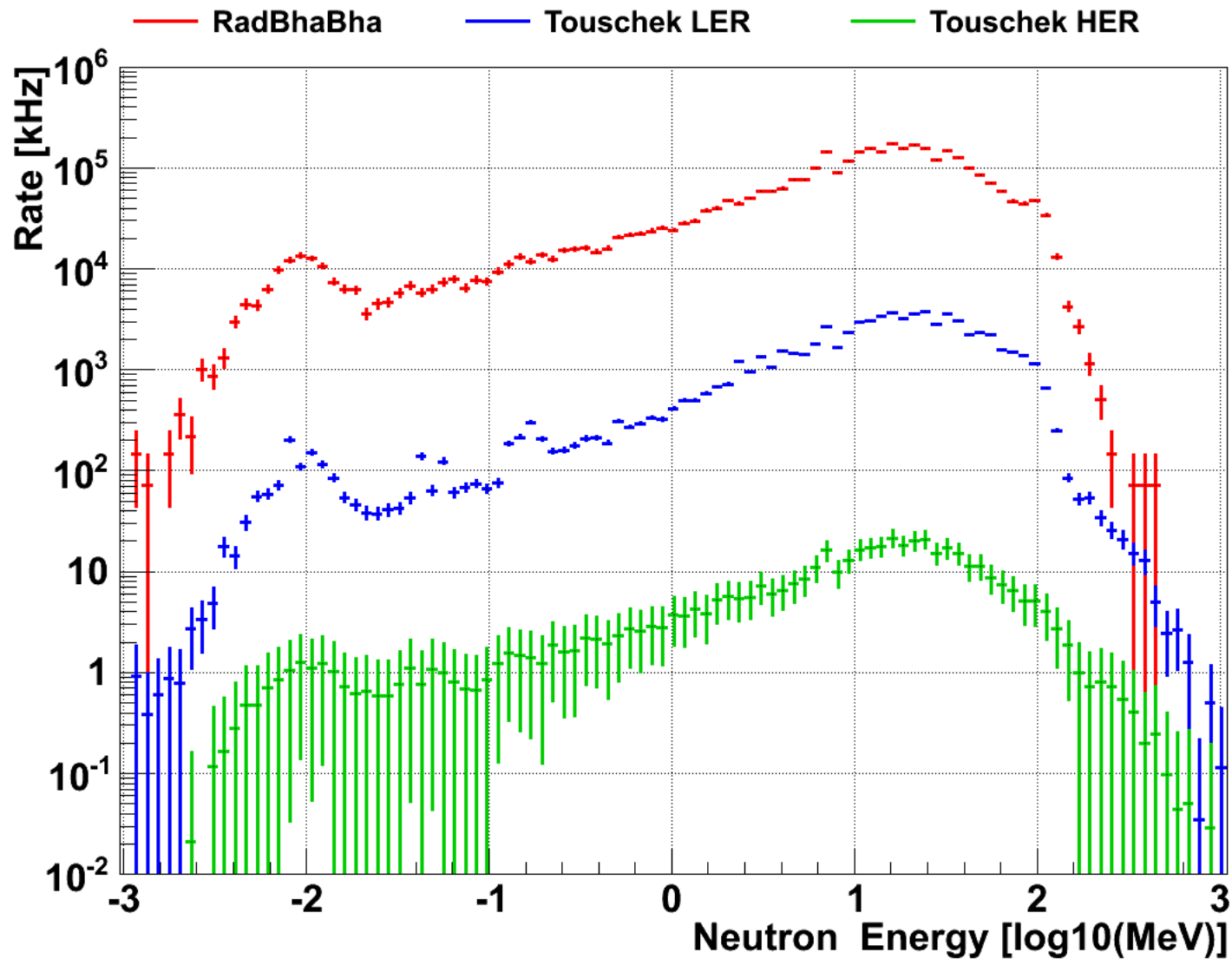
ENERGY FLUX VS THETA – $E > 10$ MeV



FOTON ENERGY FLUX



NEUTRON ENERGY FLUX



CONCLUSIONS

- The average level of background from Touschek is smaller compared to Radiative Bhabhas
- LER Touschek has “high” energy component which is significant in the back region of the Barrel
- Need to understand how to use Touschek background in Performance Analysis
 - Energy resolution
 - Number of clusters from background