

Rates with Sources and Shielding

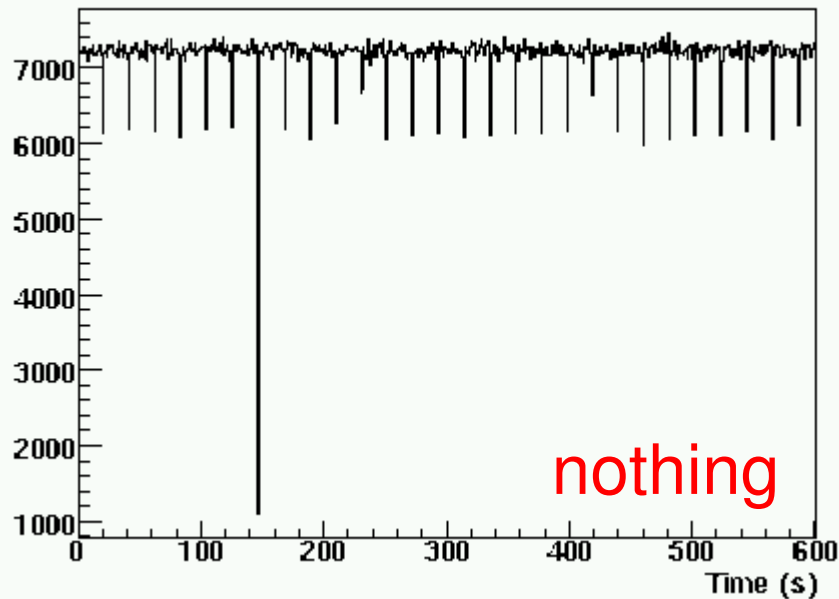
Mark Dierckxsens

OV meeting, Sept 4, 2008

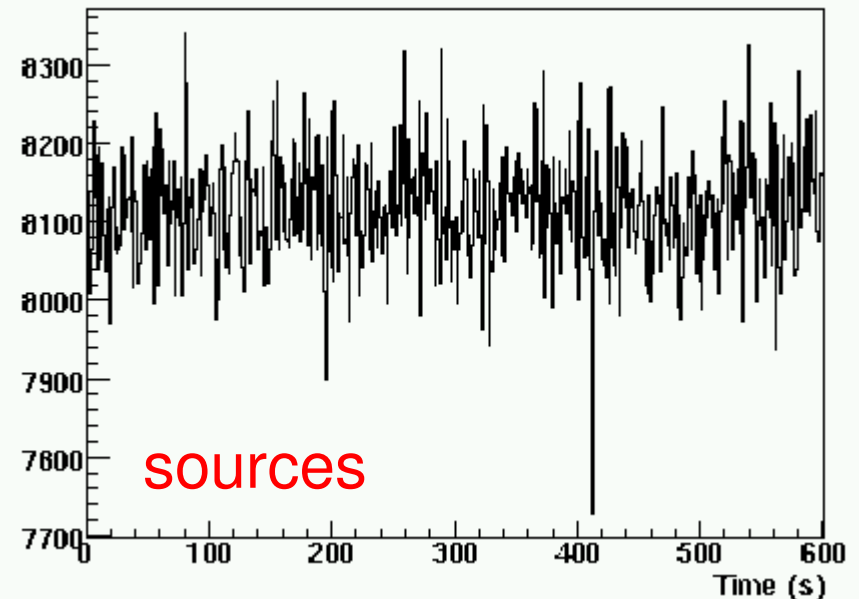
- Comparing 3 long runs taken with DACt 1043:
 - 20080821_0: with Ba-133 & Co-57 sources
 - 20080825_1: 1 inch steel plates above east strips
 - 20080826_1: no sources or shielding

Rates for first 10 minutes

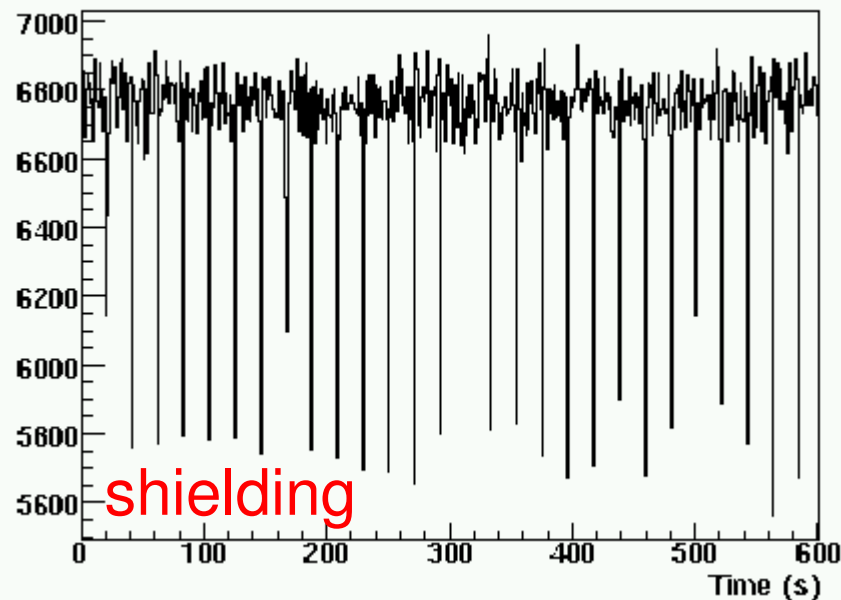
Events per second first 10 minutes



Events per second first 10 minutes



Events per second first 10 minutes

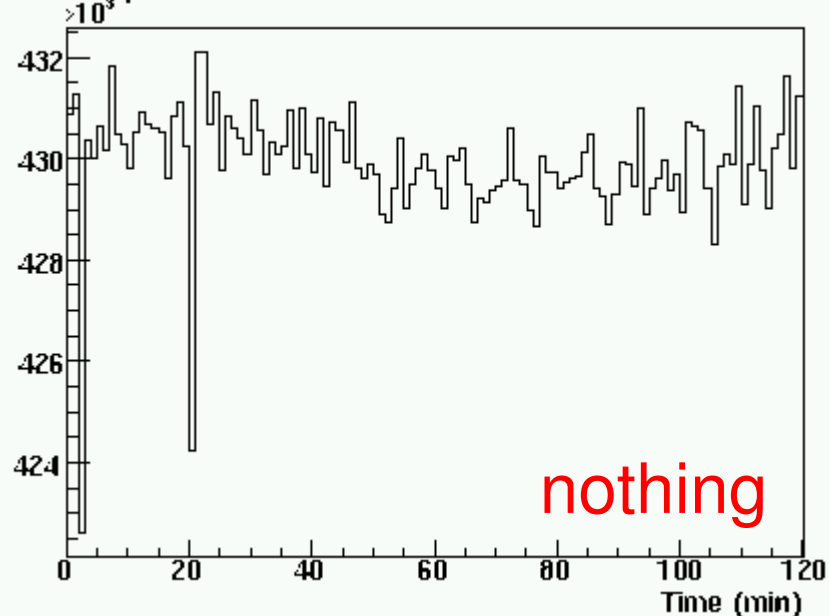


Average rate (excl. dips):

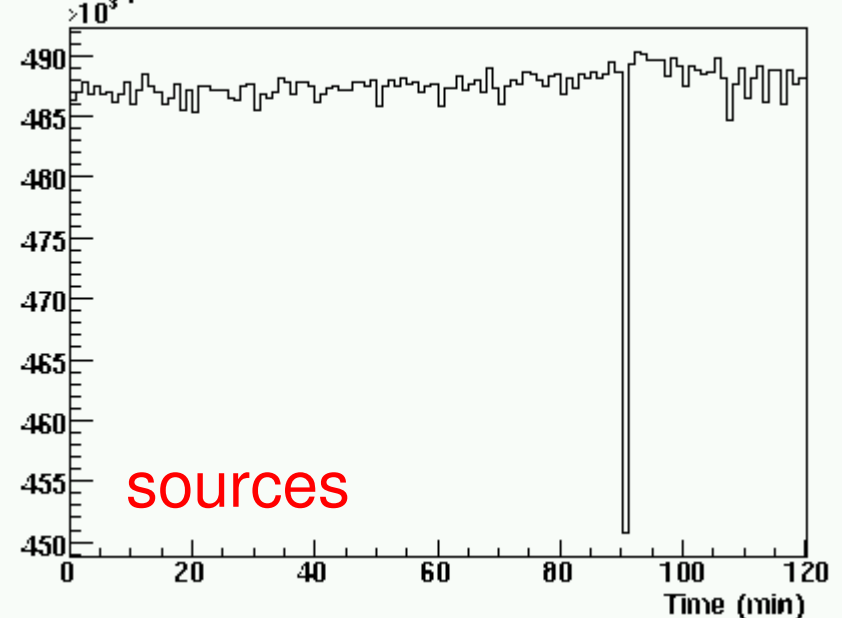
- Nothing: 7225Hz
- Sources: 8115Hz
- Shielding: 6775Hz

Rates for first 2 hours

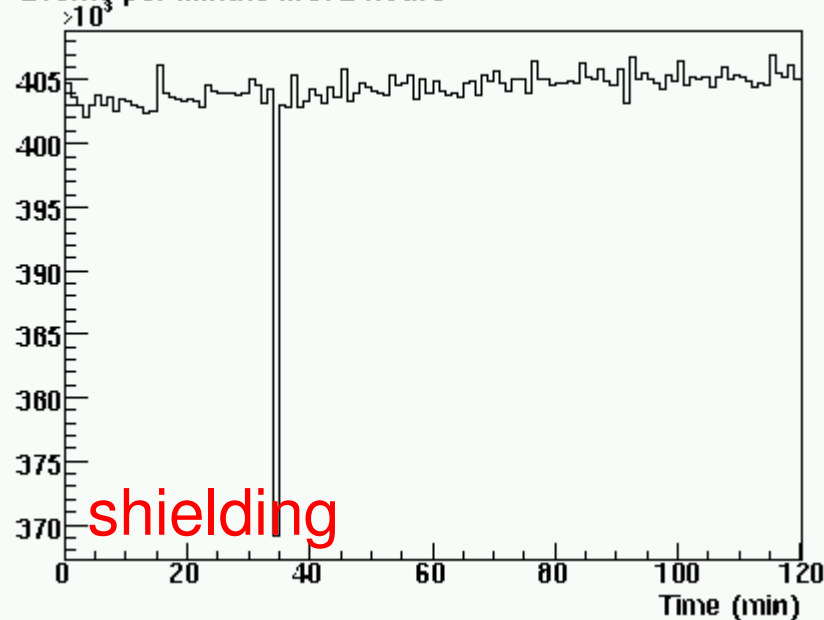
Events per minute first 2 hours



Events per minute first 2 hours



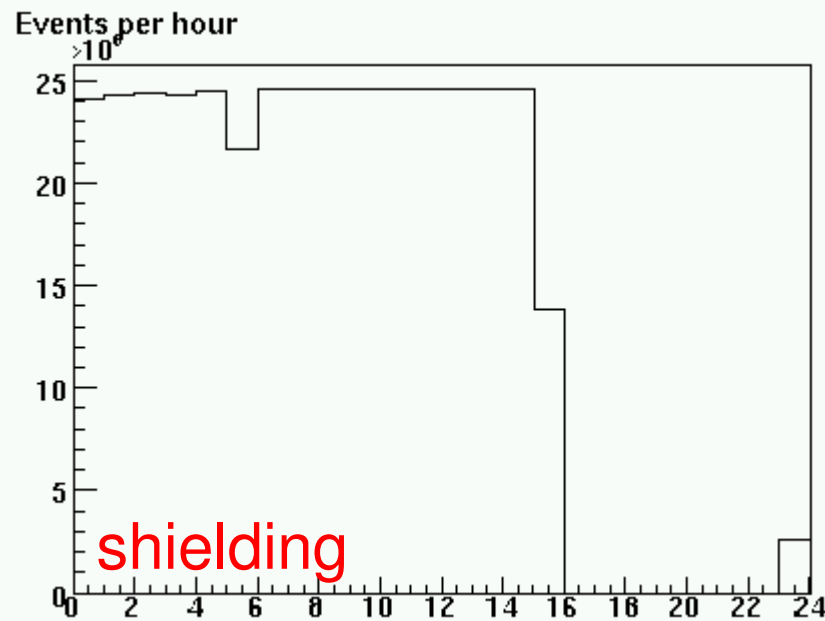
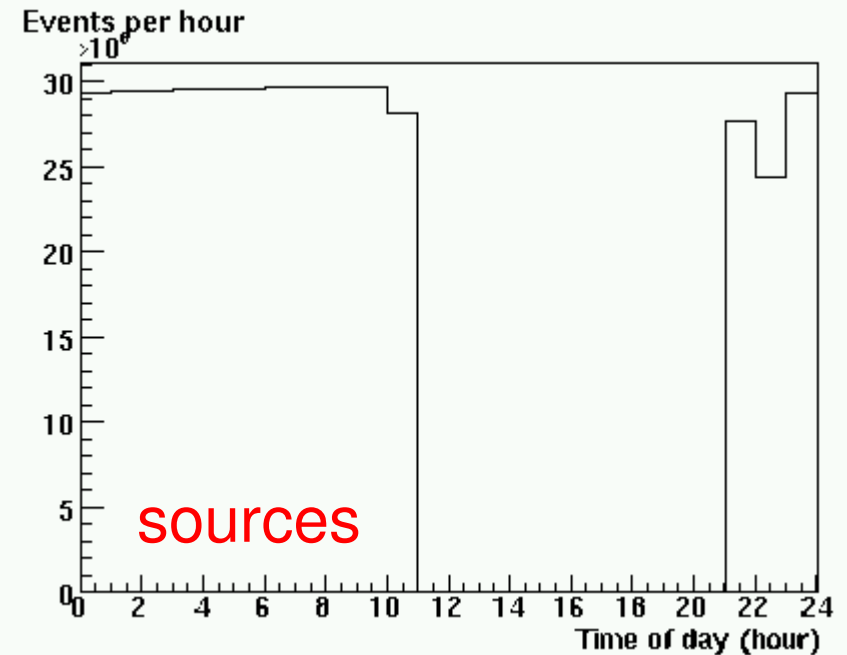
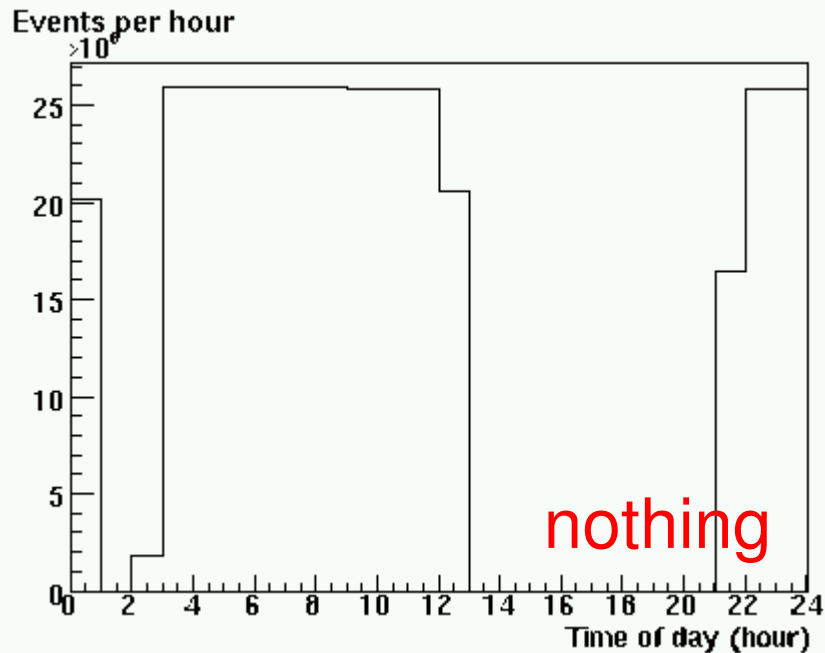
Events per minute first 2 hours



Average rate (excl. dips):

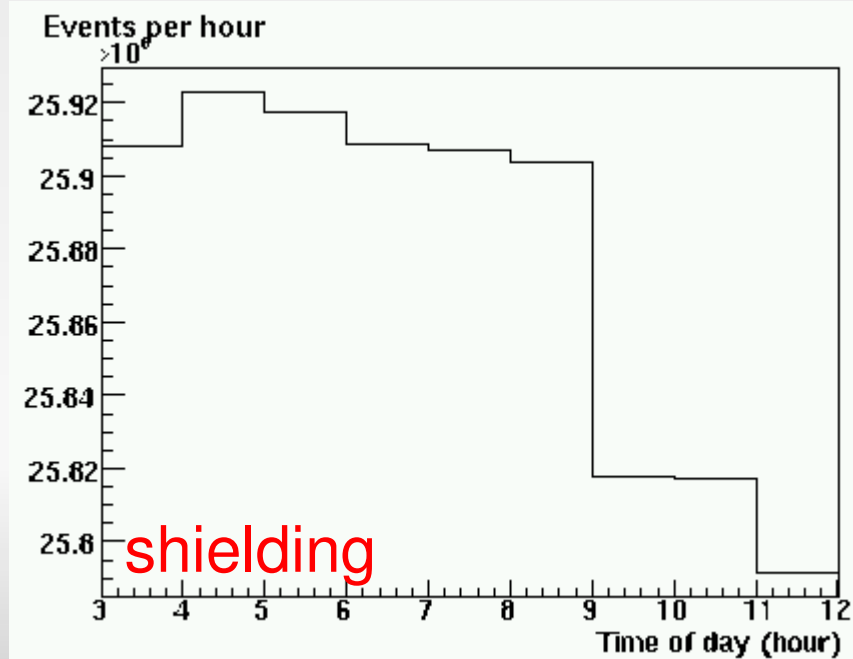
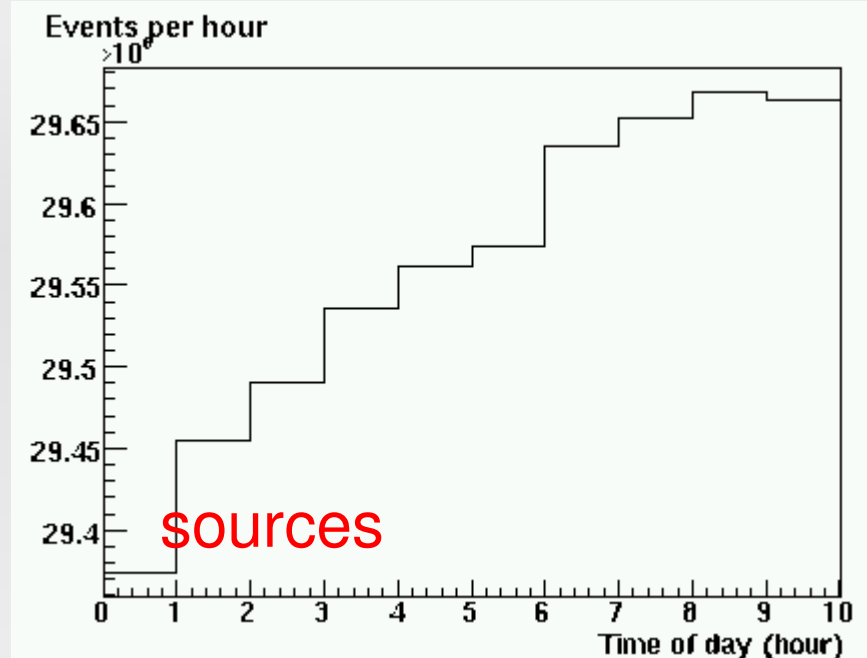
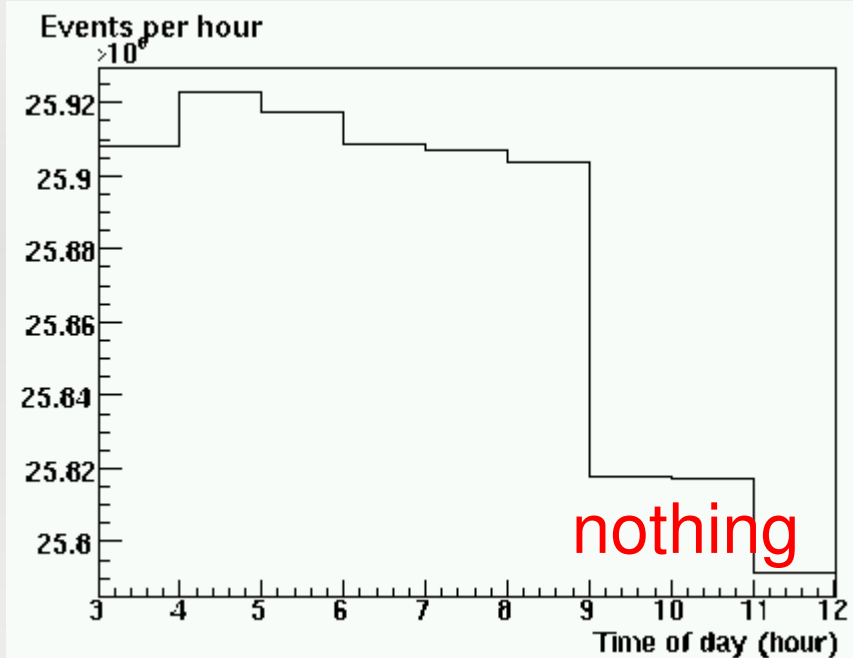
- Nothing: $4.30 \times 10^5/\text{min}$
- Sources: $4.87 \times 10^5/\text{min}$
- Shielding: $4.04 \times 10^5/\text{min}$

Hourly rate

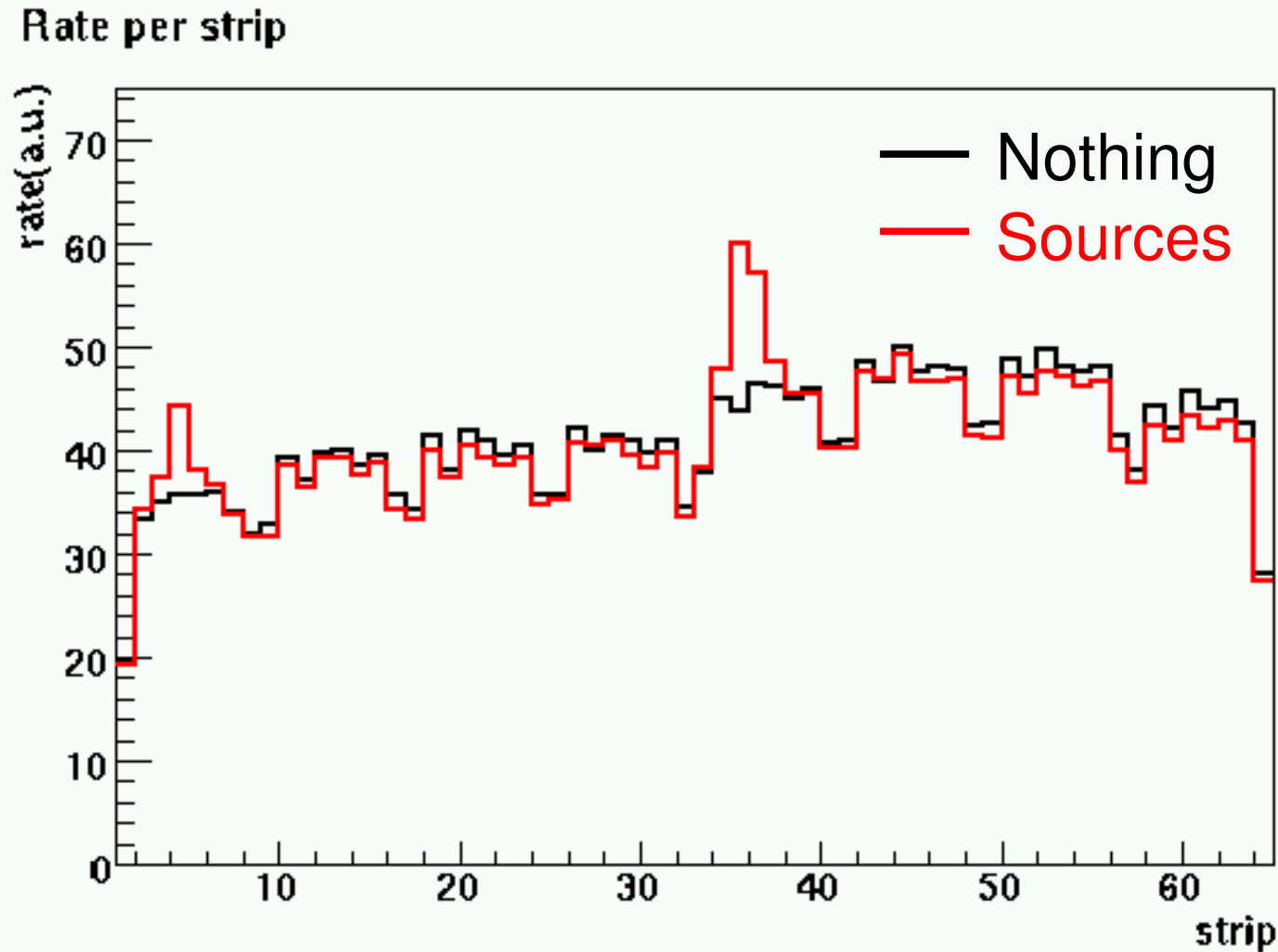


- Real time from PC
- Dips during run – power outages?
- Otherwise rate is mostly flat

Hourly rate - zoomed

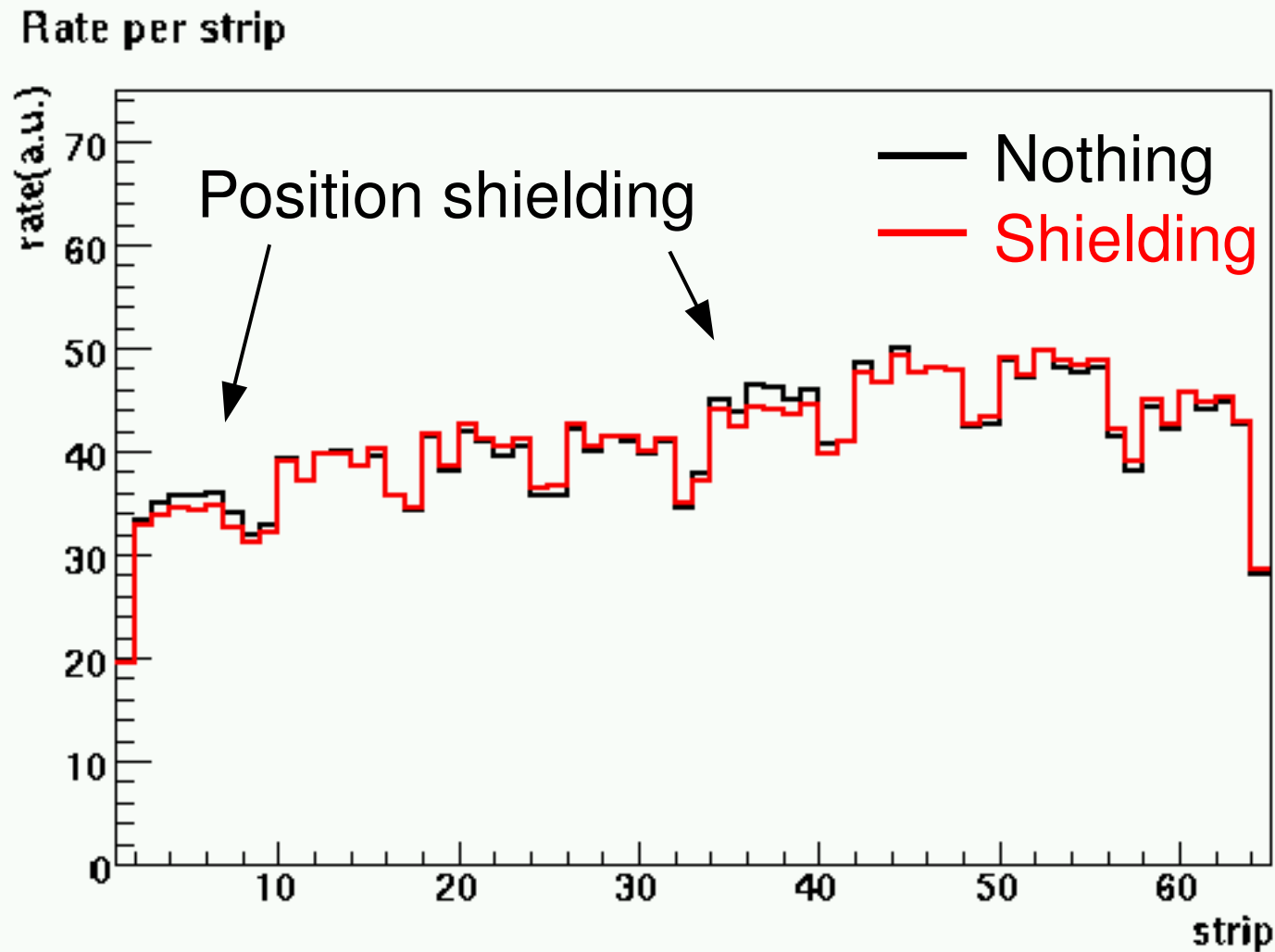


Rates per strip - sources



- Time to calculate rates are wrong but plots can be compared directly

Rates per strip - shielding



- Time to calculate rates are wrong but plots can be compared directly