Geiger Counter Detected Background Radiation
A classical Poisson distribution
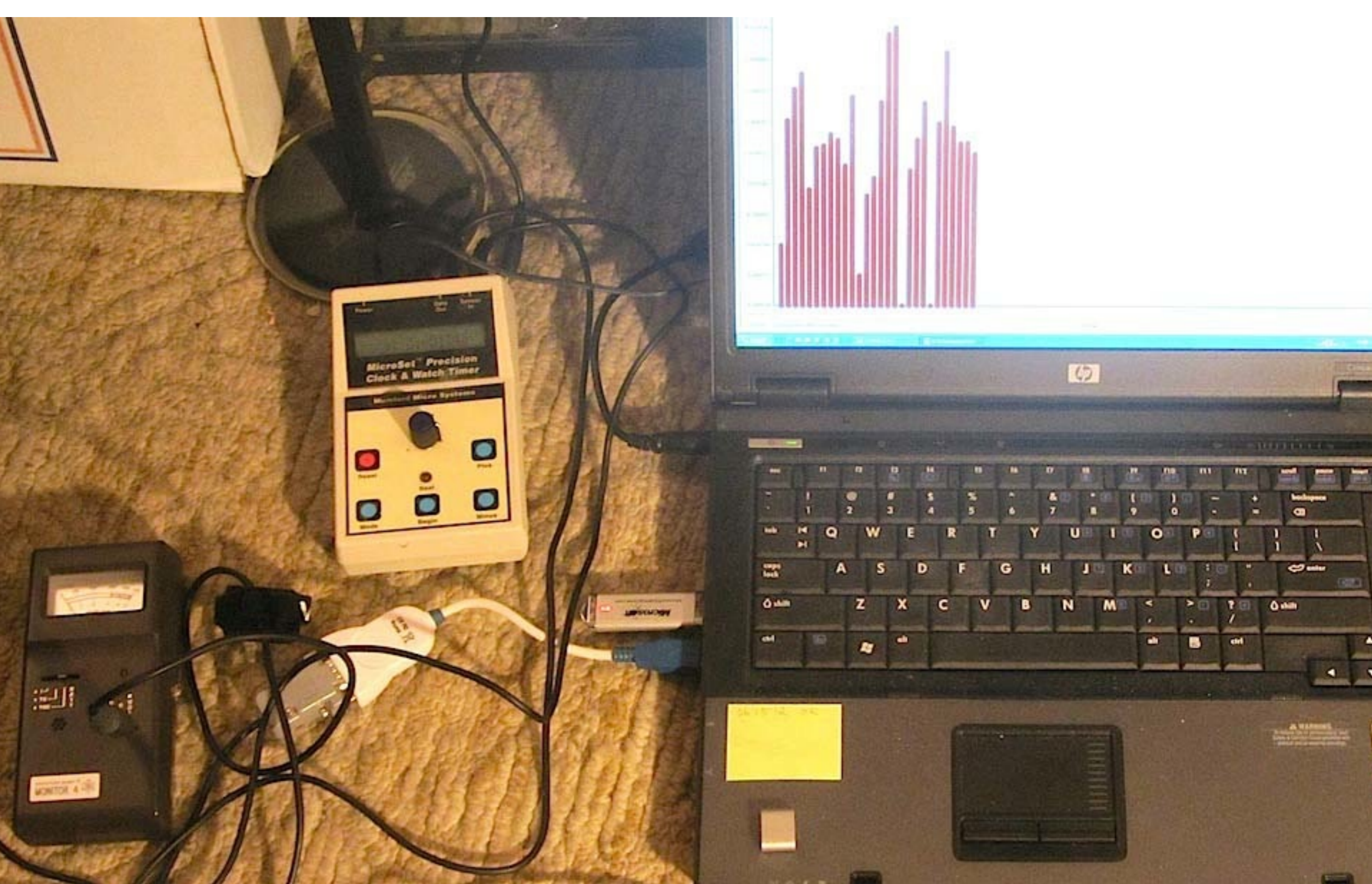
The earliest famous one is the analysis of horse kick deaths in the Prussian Army.

Ladislaus Bortkiewicz - Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/Ladislaus_Bortkiewicz

I suspect the easiest obtainable and most agreeable Poisson distribution is nuclear decay.
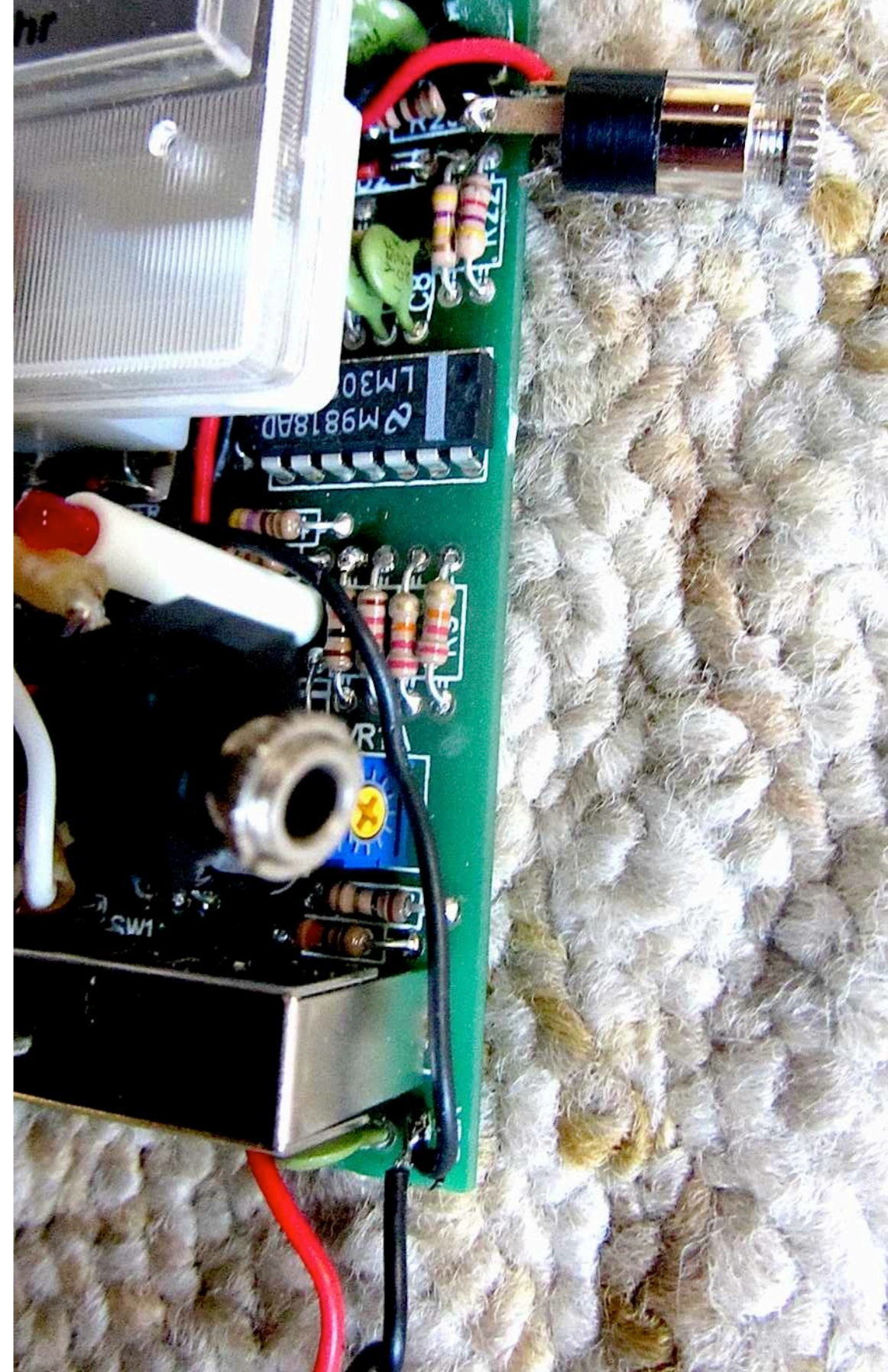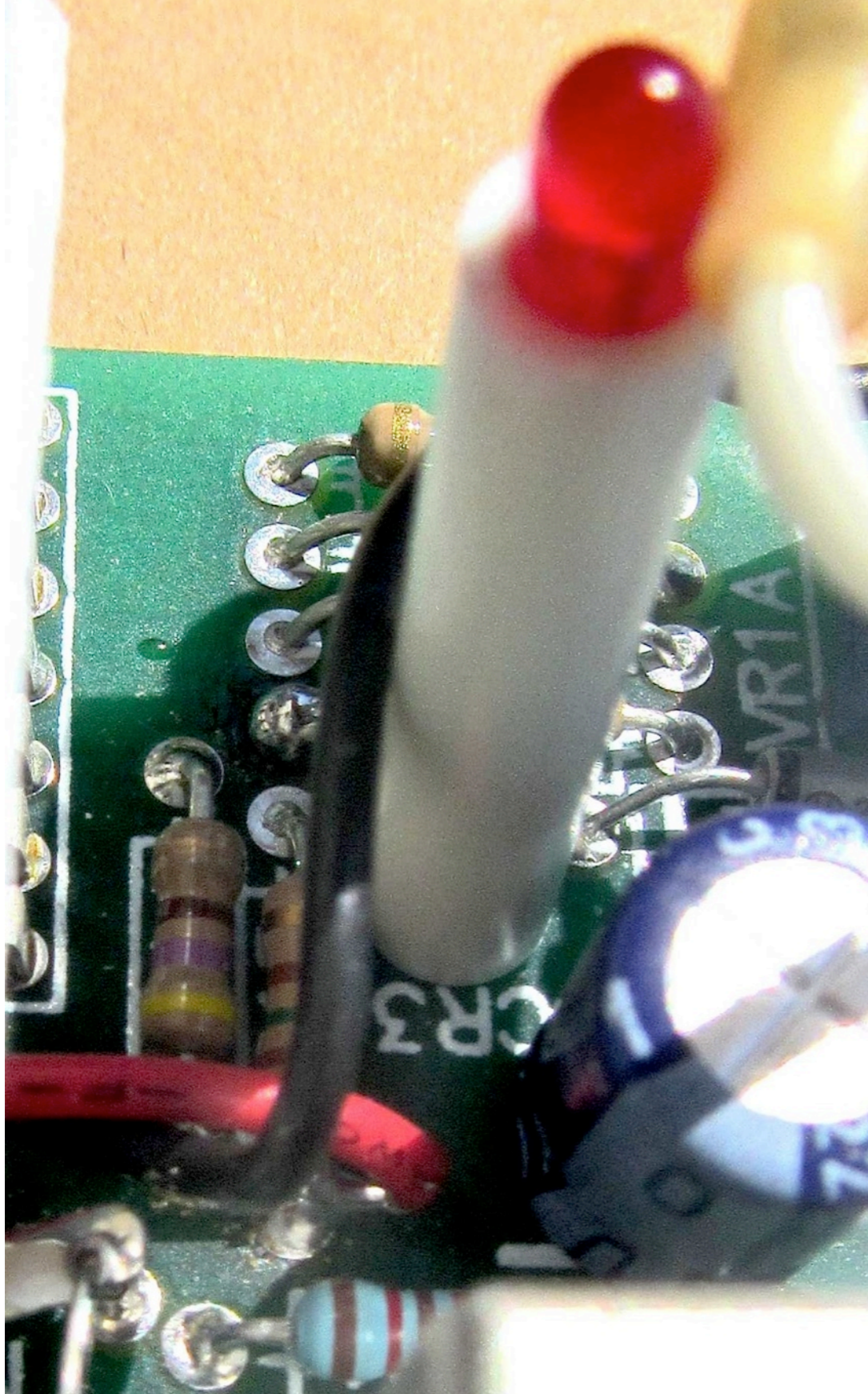
The following are minimally commented images:

Vernier's counter, MicroSet, and IBM platform portable
Note acoustic sensor clipped to switch counter switch.

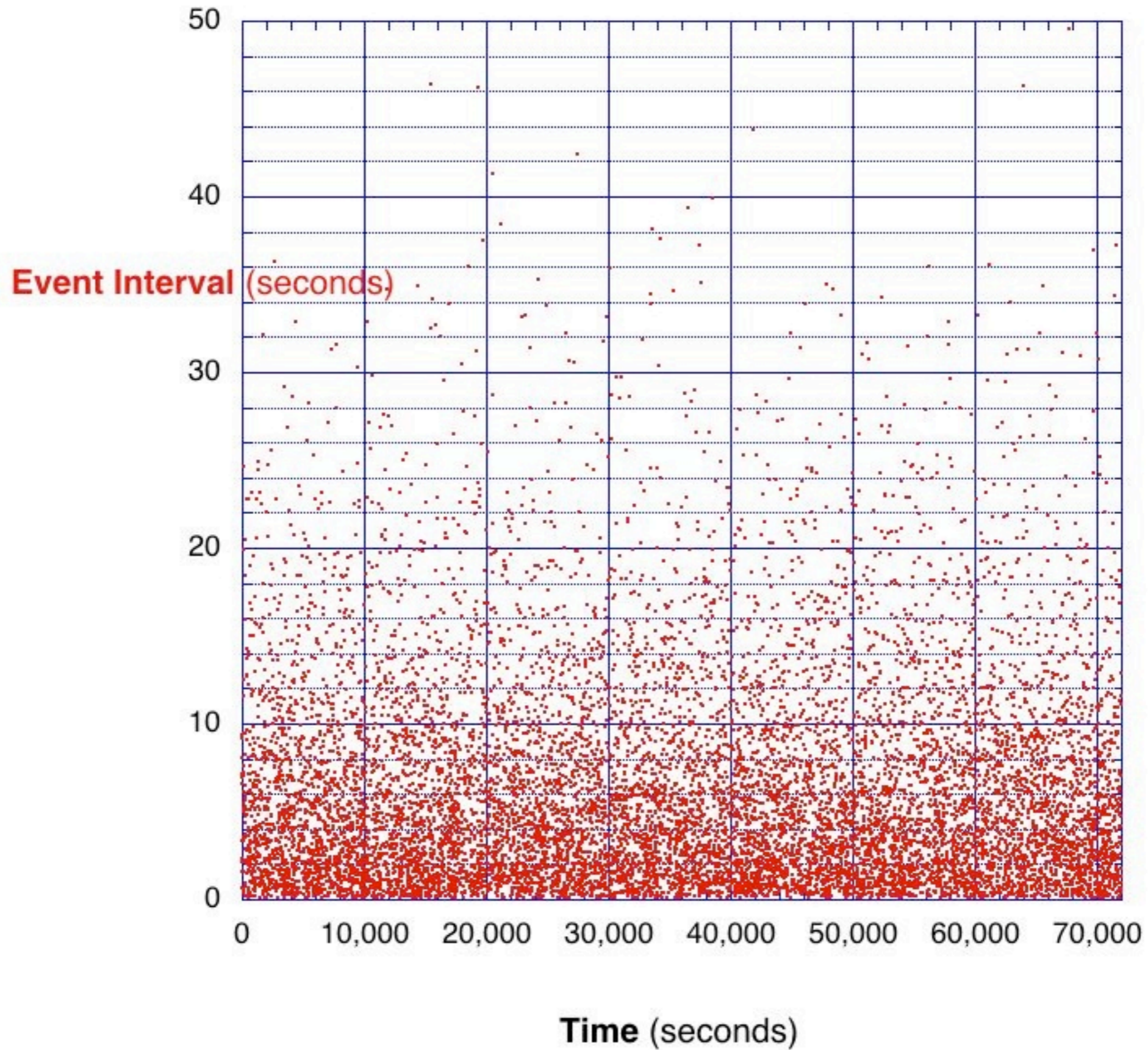MicroSet input connected to "speaker" terminals.

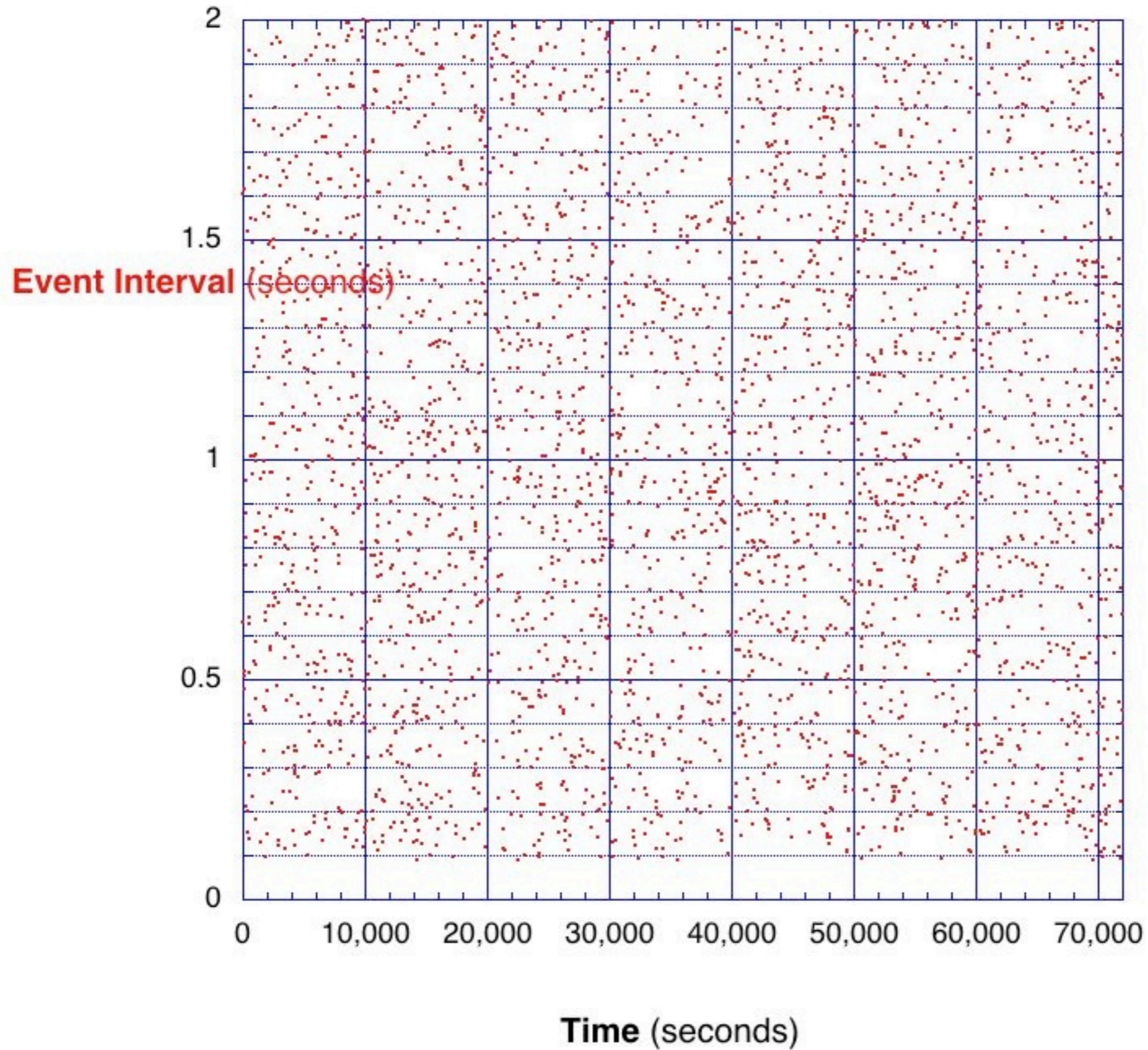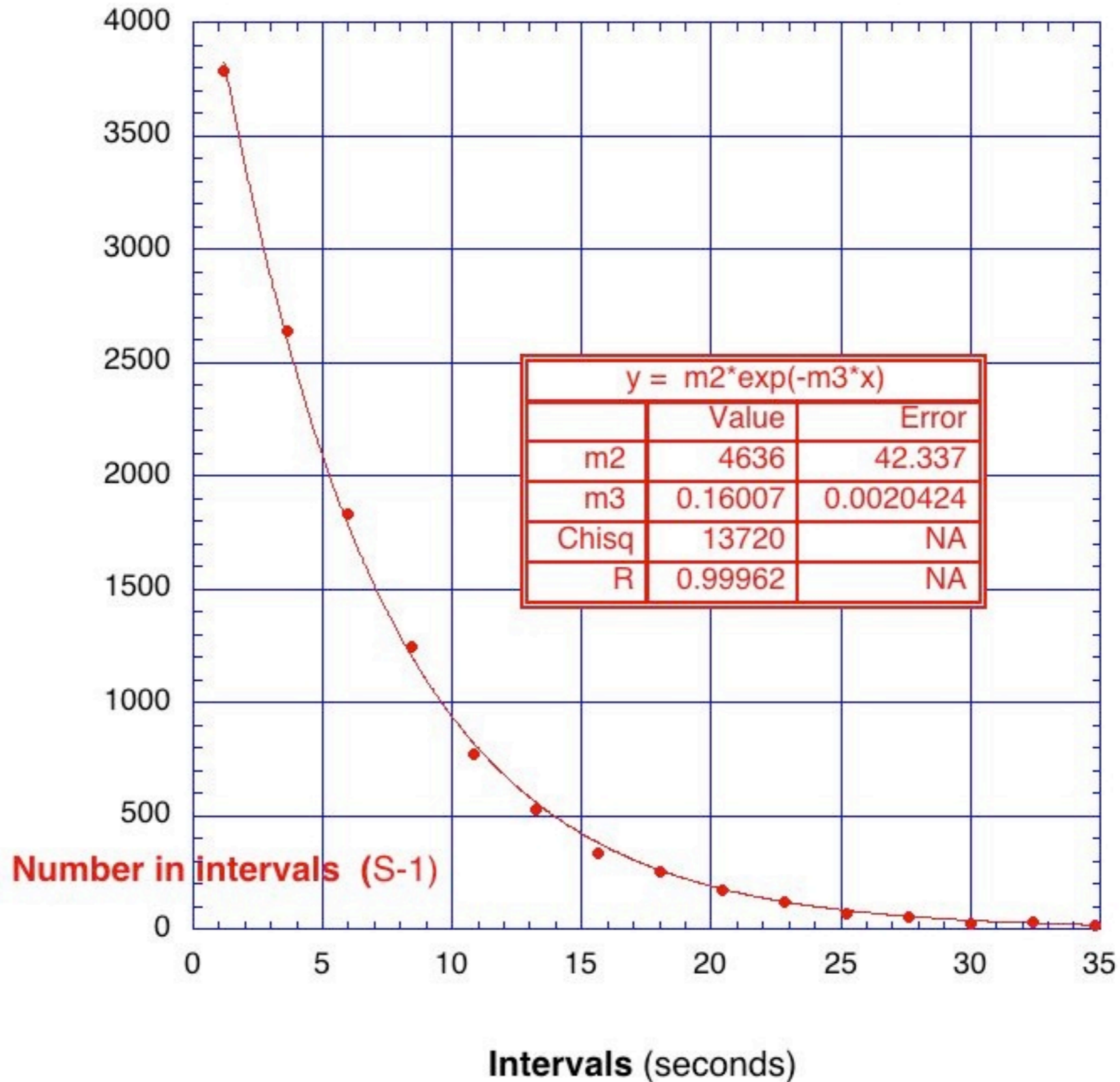Better with jack connected to ground and LED driver.

Counter shielded

Time series. Mean rate is ~ 0.1653 cps

Background Shielded Counter

Note rather long G-M tube dead time. (~ 100 ms)

0=>36; 15 ; C

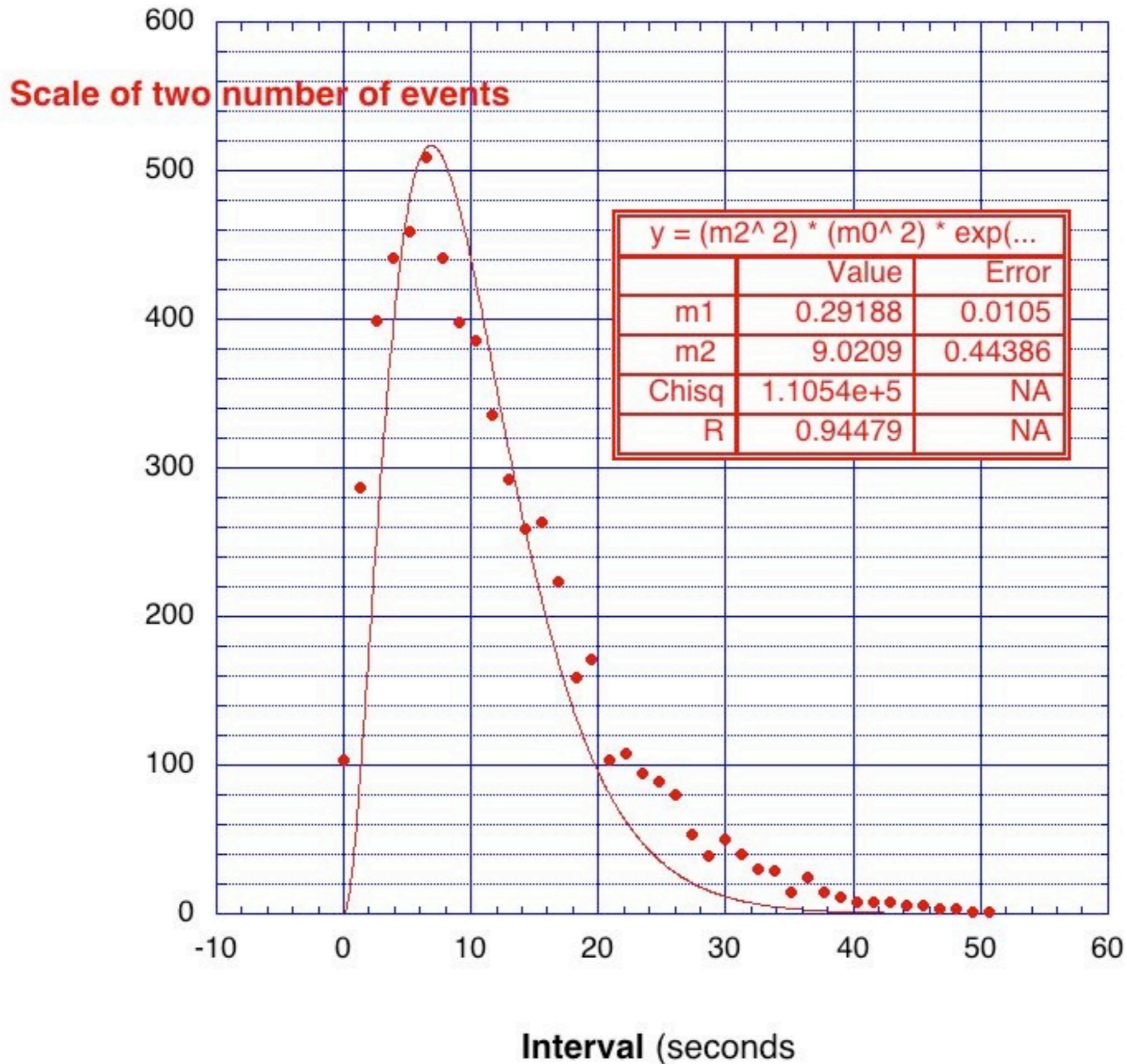| y = m2*exp(-m3*x)		
	Value	Error
m2	4636	42.337
m3	0.16007	0.0020424
Chisq	13720	NA
R	0.99962	NA

Number in intervals (S-1)

Intervals (seconds)

Binned intervals (15 bins, zero to 36 seconds between events)

S-2; 0=>52; 40

Scale of two binned, zero to 52 seconds, 40 bins