MIPS Extended Source Calibration

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Germanium Detector Response

(Figure taken from Brett Wells reports on MIPS)

I – Incident flux

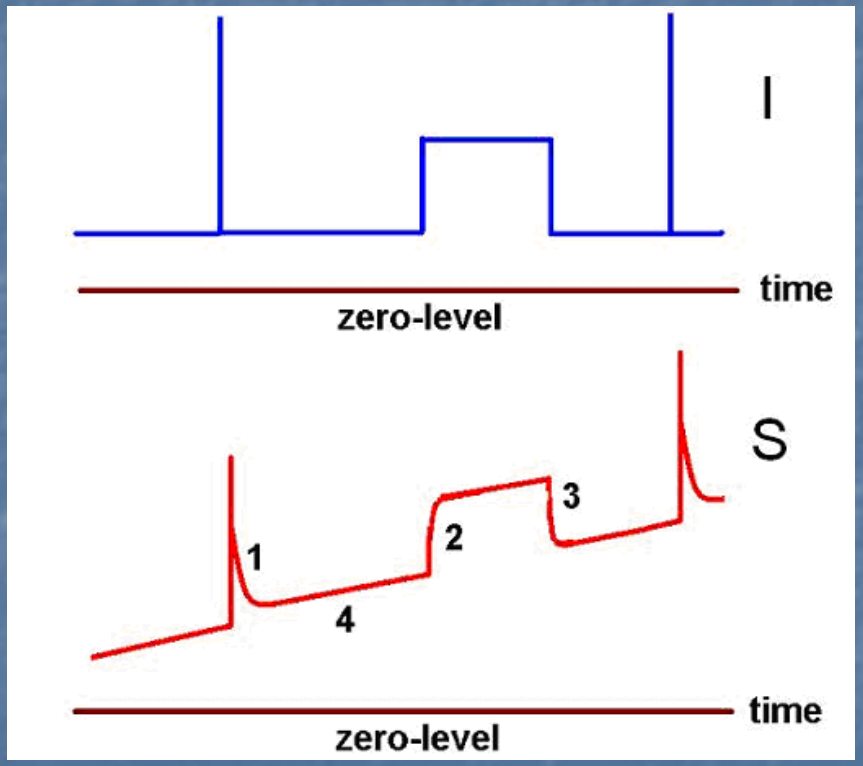
S – Array output

1 – Stimflash latents

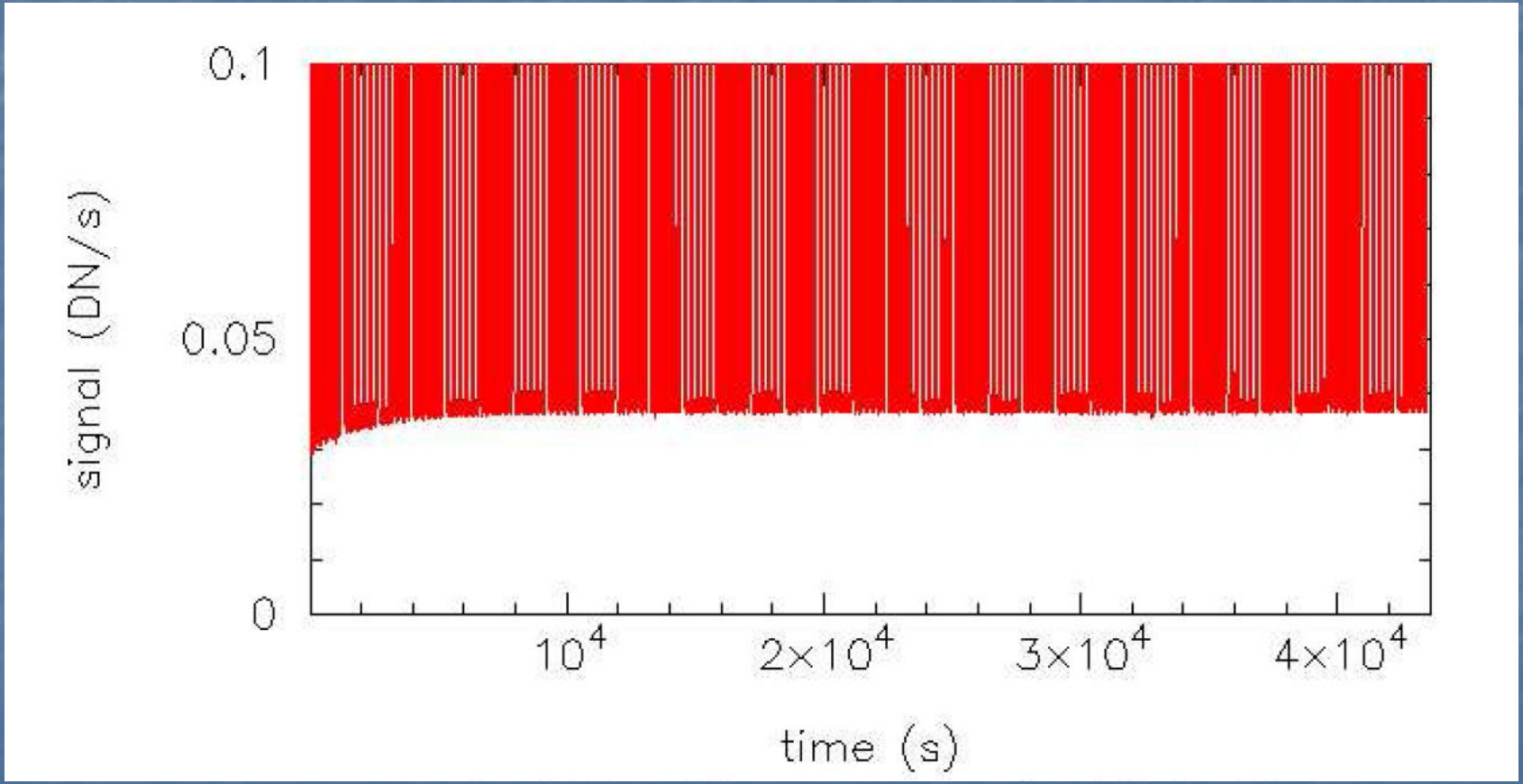
2 – Transient (incremental)

3 – Transient (decremental)

4 – Drift



Example of Drift Effects



Transients

- Problem in 70, 160 μm arrays
- Understood for point sources
- Short term effects understood
- Long term effects not known
  (data needed to examine problem)

Drift

- Problem mainly for 70 μm array
  - 3% per hour effect for whole array
  - 0 – 8% per hour effect for individual pixels
- Understood but complicated, counterintuitive
- May be corrected by linear, scalar functions

Helpful Observing Strategies

- Use overlapping scan legs
- Repeat mapping with second AOR
- Use total power measurements to determine zero points in field

Comments on MIPS Enhancer

- Will follow individual pixels
- Can correct drifts, transients in individual pixels