Radioactive Decay & Libraries

- Use case for development: induced activation in space
  - Complex irradiation time profiles
  - Specific times for observations
- User can enter time profile functions for source and biased observations:
  - /grdm/sourceTimeProfile <filename1>
  - /grdm/decayBiasProfile <filename2>
- *All particles MC simulations are started at t=0*, but results are convolved over source time profile
- References:
  - Bateman, Royal Soc Proceedings, 1910
  - P R Truscott, PhD Thesis, 1996
  - Physics reference manual
  - Pete Truscott, "Treatment of Radioactive Decay in Geant4", DERA/CIS/CIS2/7/36/4/10 , 2010
  - Extended examples "radioactivedecay"