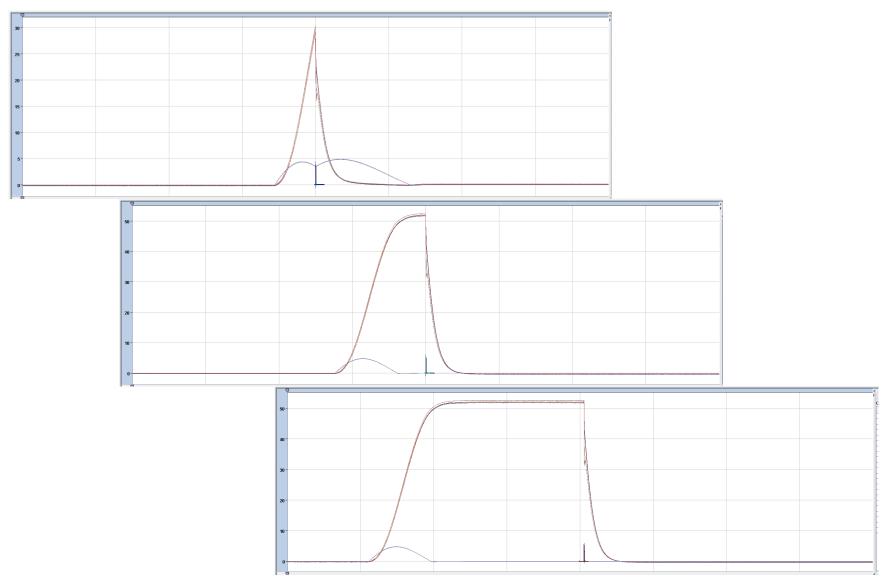
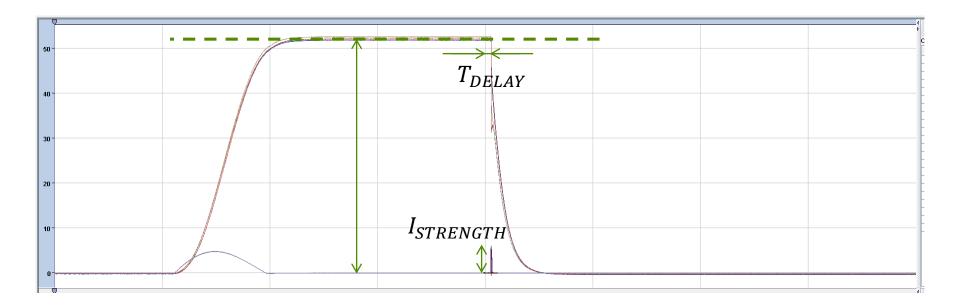
PFN-IPOC data analysis



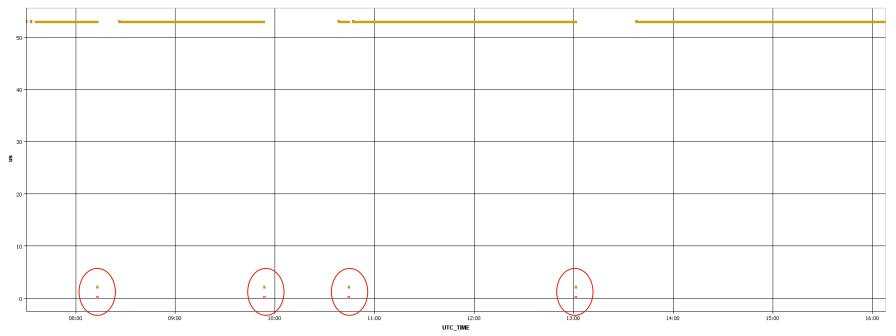
Marcell Szakaly

Logged parameters



- Timestamp
- T_DELAY
- I_STRENGTH
- KICK_STRENGTH_TOPLAY (slow)
- Waveforms (very slow)

MS Erratics



T_DELAY of all 4 MKI2 systems, 2016-03-16

- Erratics T_DELAYs are spread out a lot more
- Distinguishable by 1 low 3 high pattern
- Separation of 2μs

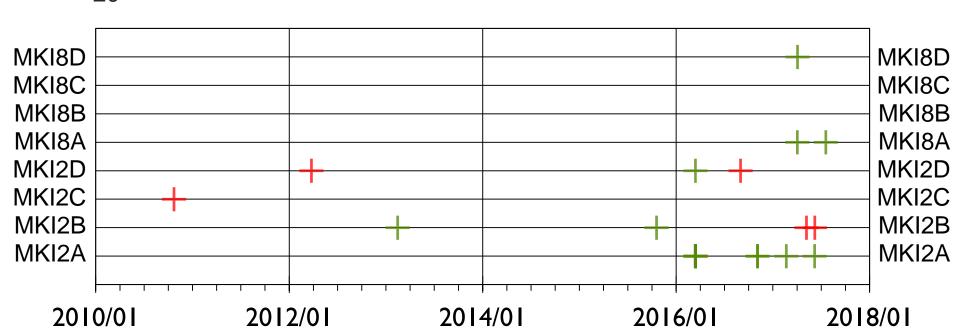


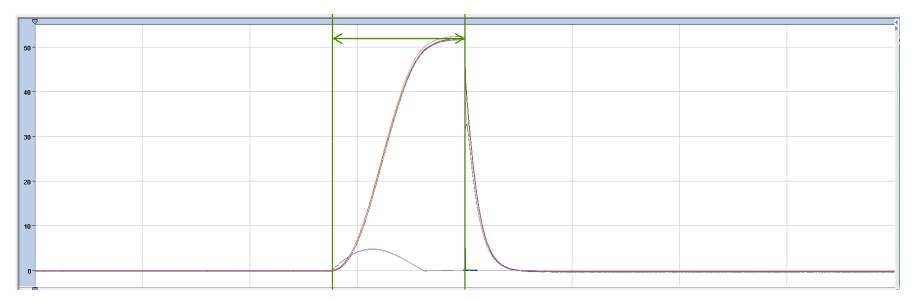
Identification

- Take the lowest point
- Sum the other points distance from the (lowest point + 2us)
- If the sum is small enough and the lowest value was positive
 - Print erratic information

Output

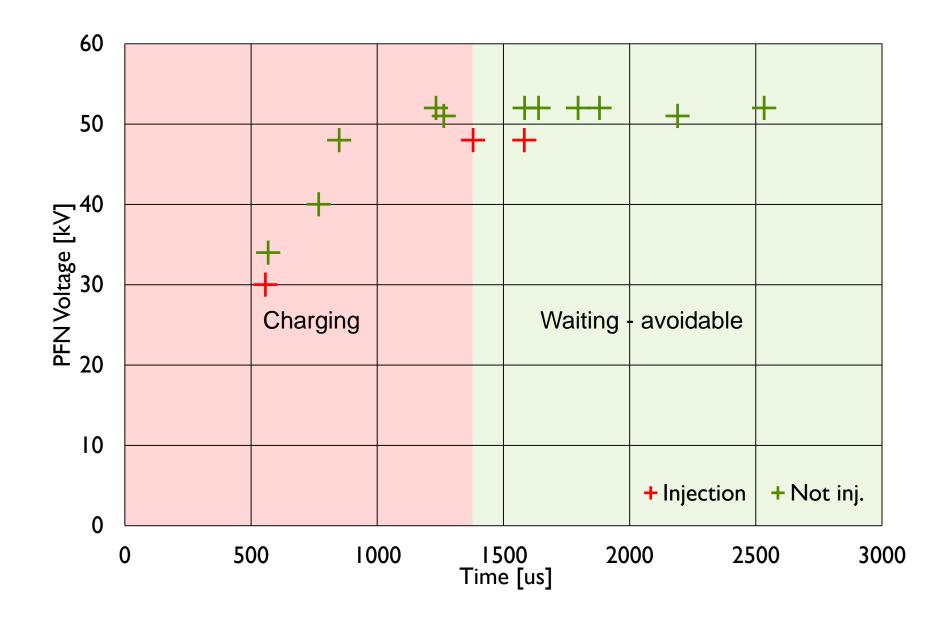
- Timestamp
- Previous event time distance
- Previous event T_DELAY
- Magnet system name
- Found events:
 - **2**0





■ Time between start of PFN charge and erratic

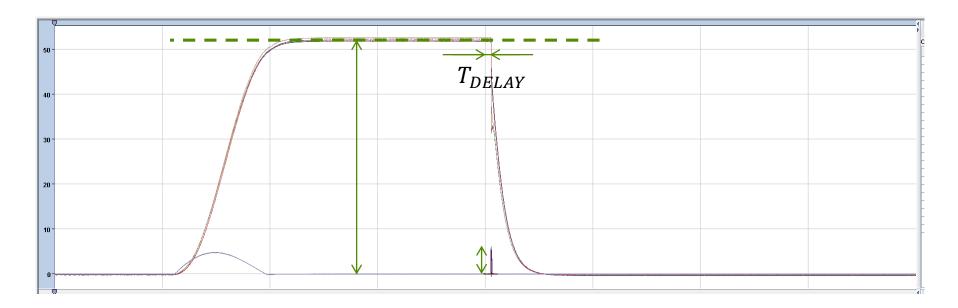
Time of erratic



Dump switch erratics

- Concept
 - Look for cases when the kick strength was near 0
 - But T_DELAY is positive (many fake events)
- Problem
 - T_DELAY values are often missing

PFN Voltage monitoring



- Timestamp
- PFN Voltage flat top
- T_DELAY
- I_STRENGTH
- Req. PFN voltage
- Difference of produced and requested voltage