

Changes to BLM thresholds during TS2

LHC-BLM-ECR-0038

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19th BLM Thresholds WG Meeting
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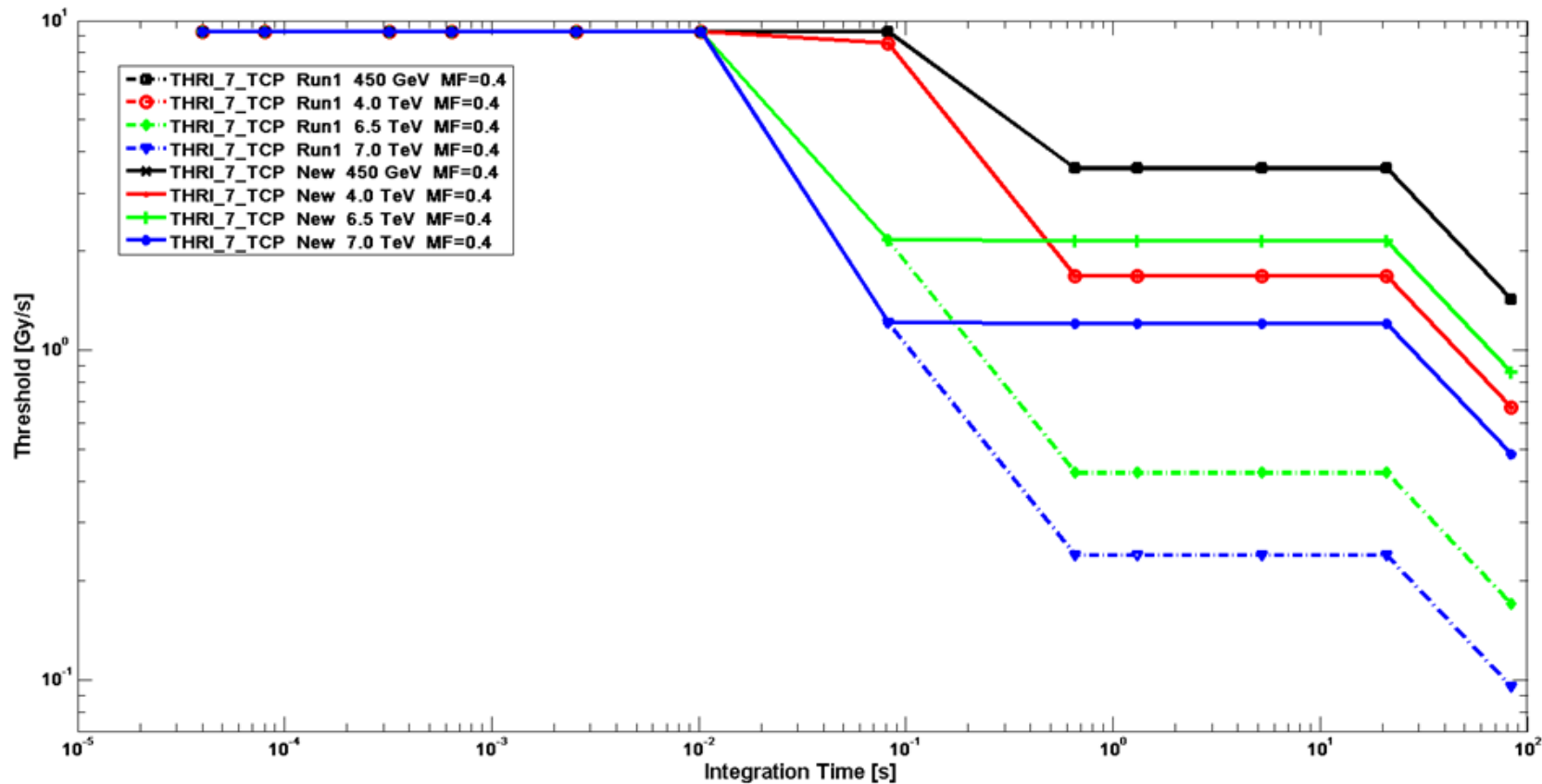
Changes during TS2

- The plan is to write the changes to electronics on Monday 31st
- The changes will affect monitors in IRs 3, 4, 5, 6 and 7
- Changes are reported in LHC-BLM-ECR-0038
- Changes:
 - Threshold changes: IR3, 4, 6 and 7
 - Monitor namechanges: IR 5
 - Obsolete XRP monitors in cell 5 get –RUN1 extension
 - BLMQI.06R5.B1E20_MQML will get _XRP extension
 - Was forgotten during the last namechanges
 - Extension helps in finding the monitors during Roman Pot alignment
 - In addition several updates to the official names (not mentioned in the ECR)

Changes to IR7 collimator thresholds

- THRI_7_TCP; THRI_7_TCSG and THRI_7_TCSG_F5; THRI.06_7_AB_TCLA, THRI.06_7_CD_TCLA and THRI.07_7_AB_TCLA families
- Ad-Hoc factor correction to RS09 and fix to RS09 to get FT at top energies

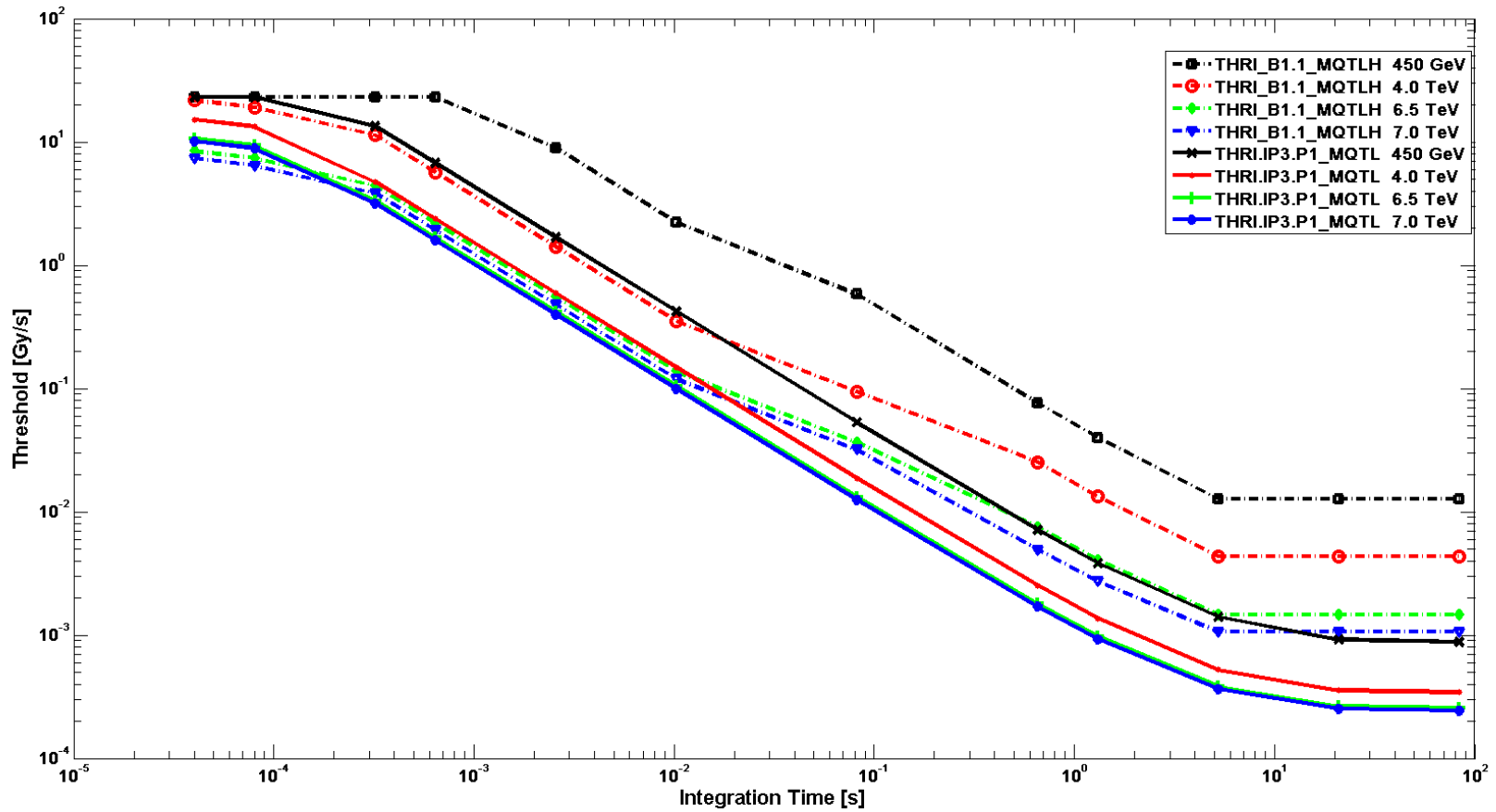
THRI_7_TCP



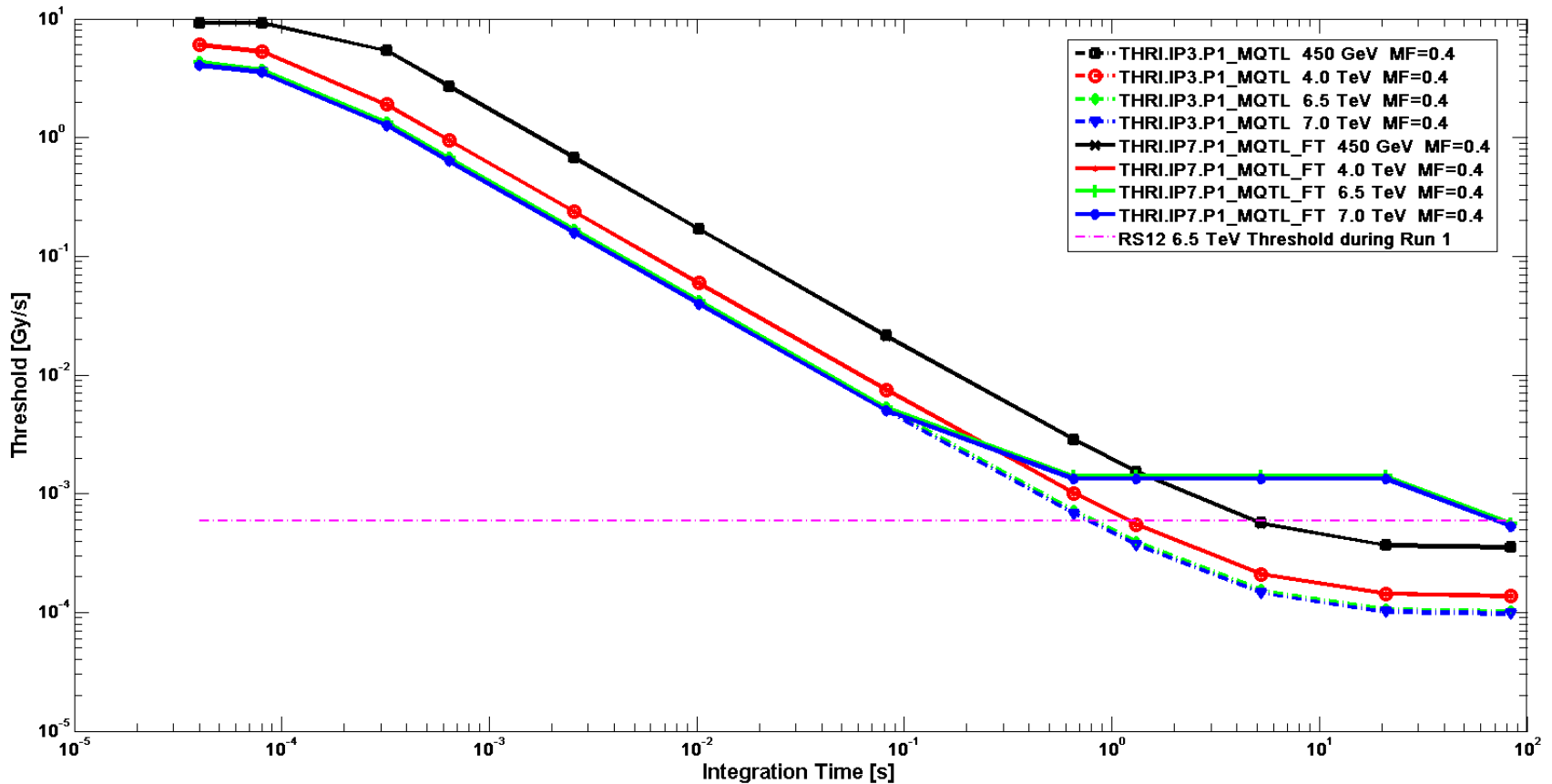
Changes to cold magnet thresholds in IRs 3, 6 and 7

- New threshold models were calculated during LS1 but are not yet implemented to some of the monitors in the long straight section
- Since modifications are required to MQTL monitors in IR7, it was decided to introduce the new models to IR3 monitors at the same time
 - Main changes to position 1 and 2 monitors
 - MF at 200 kW from 1.0 to 0.4 and 1.0 to 0.1 respectively
 - Position 3 monitors will remain in a set to MAX family

THRI.IP3.P1_MQTL



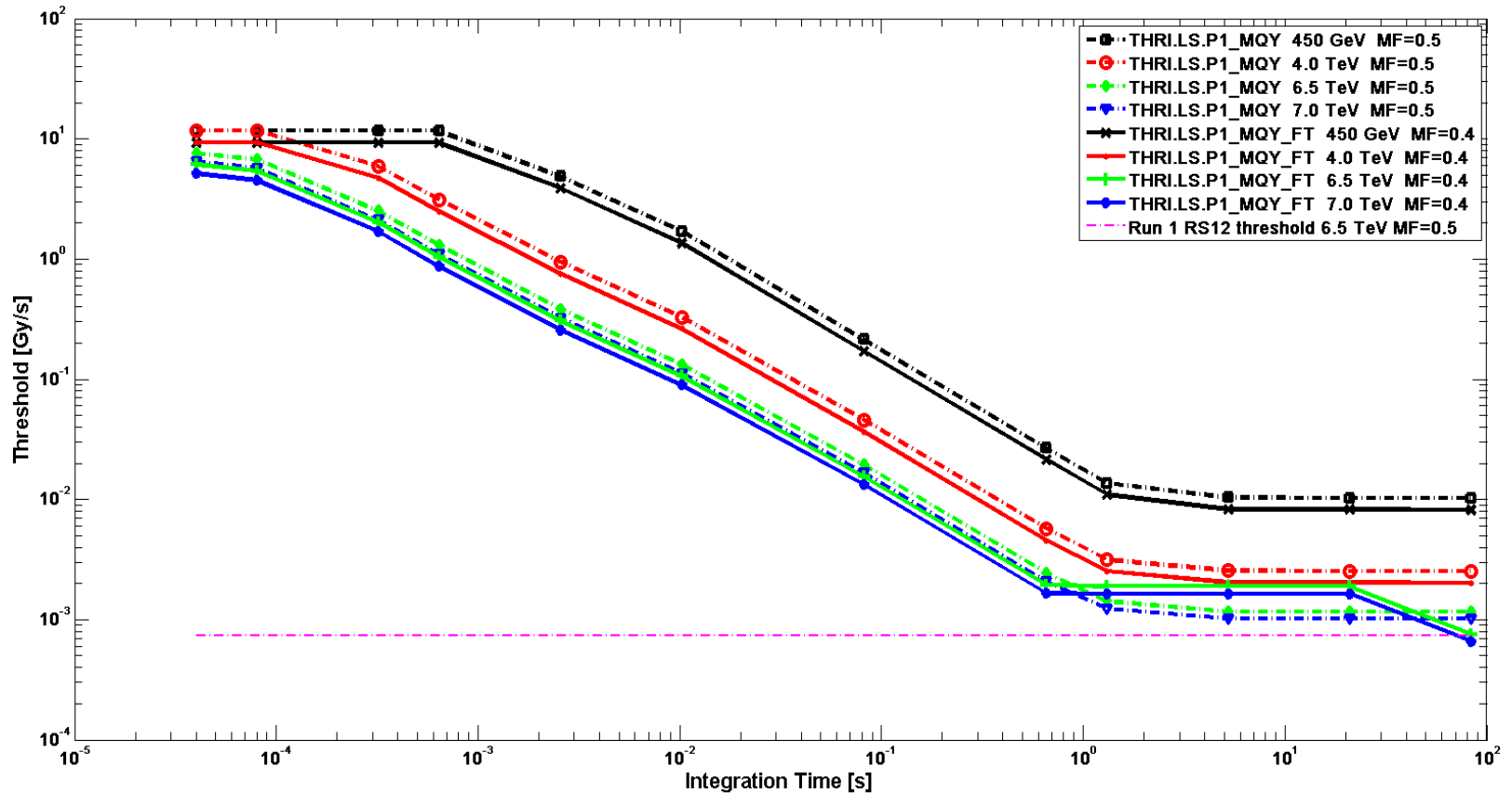
THRI.IP7.P1_MQTL_FT



Changes to cold magnet thresholds in IRs 3, 6 and 7

- For the MQY monitors, new thresholds had already been implemented
- FT correction required only for P1 monitors in IR6
 - MF will be changed from 0.5 to 0.4 at 200 kW

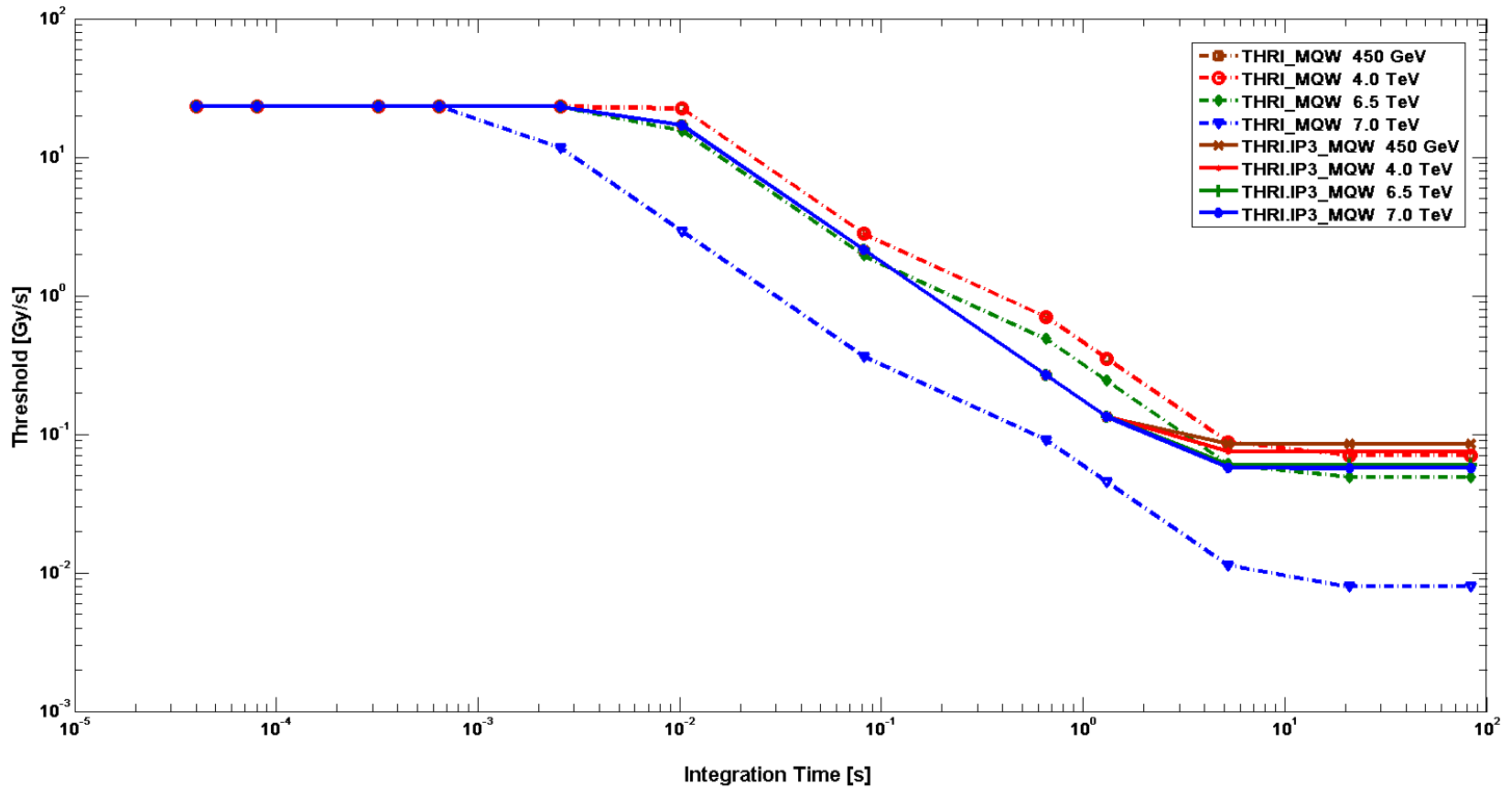
THRI.LS.P1_MQY_FT



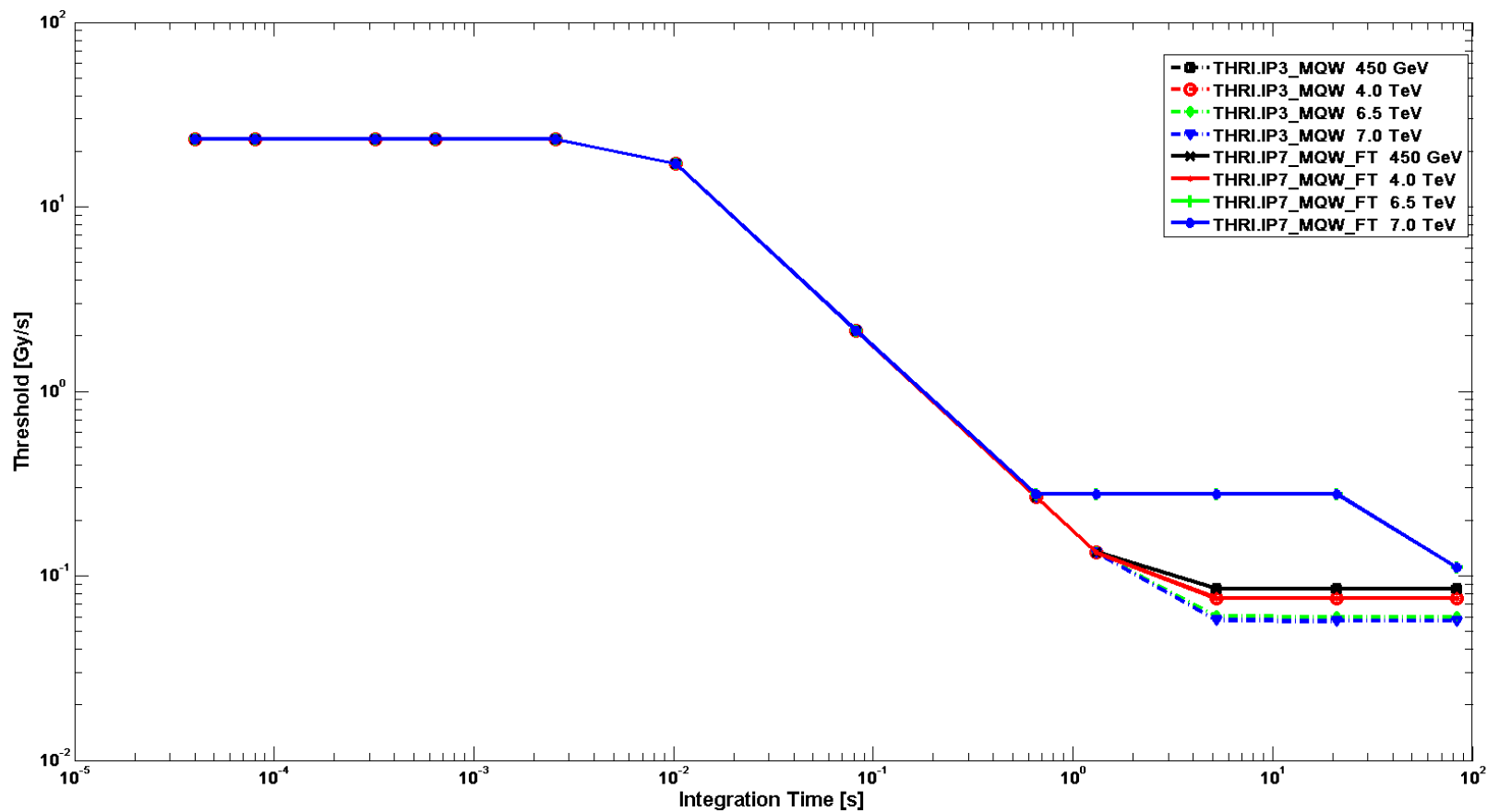
Changes to warm magnet thresholds

- Similarly to MQTL thresholds, new models to MQW monitors had been calculated but not yet implemented

THRI.IP3_MQW



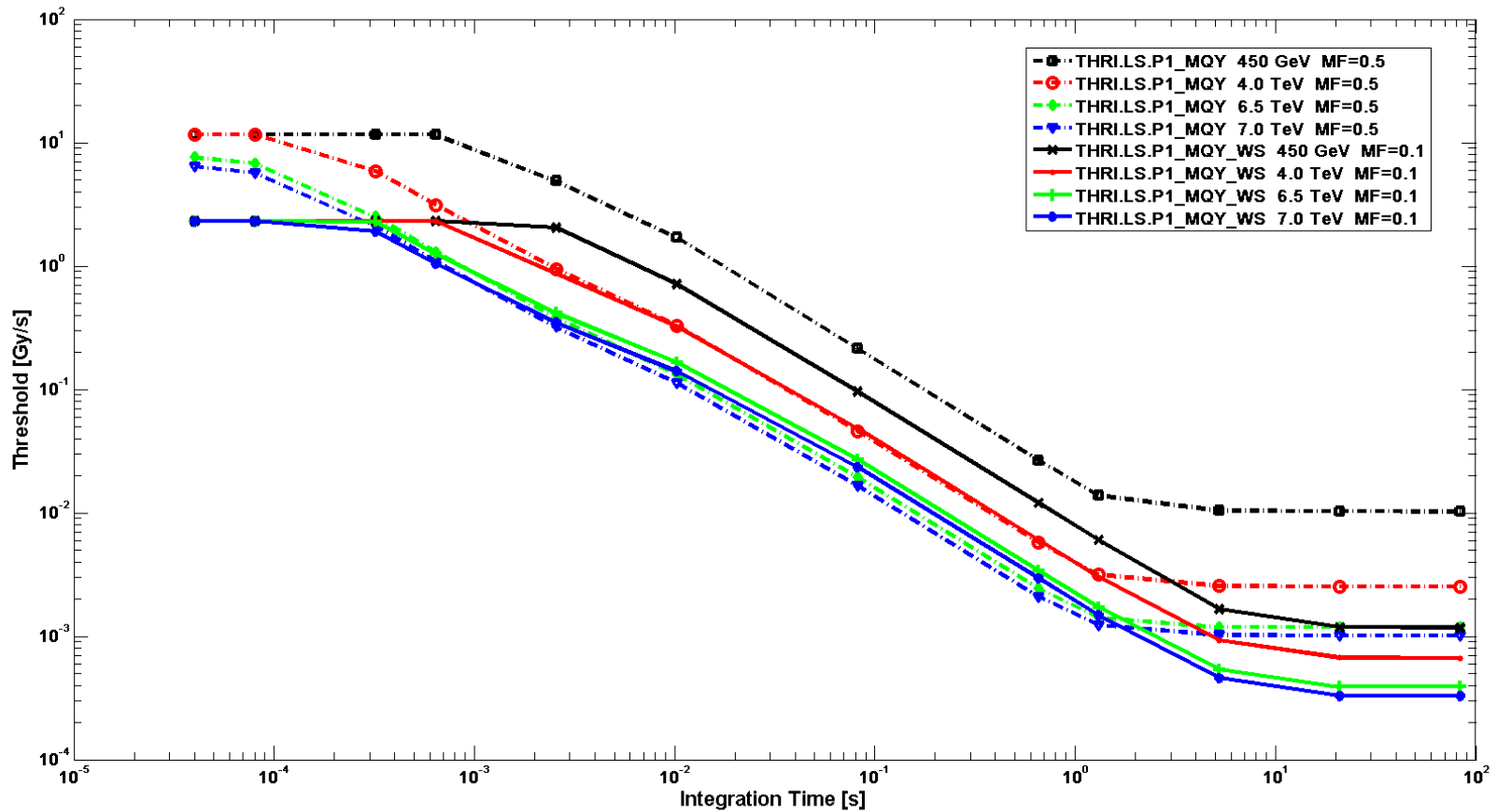
THRI.IP7_MQW_FT



Wirescanner monitors

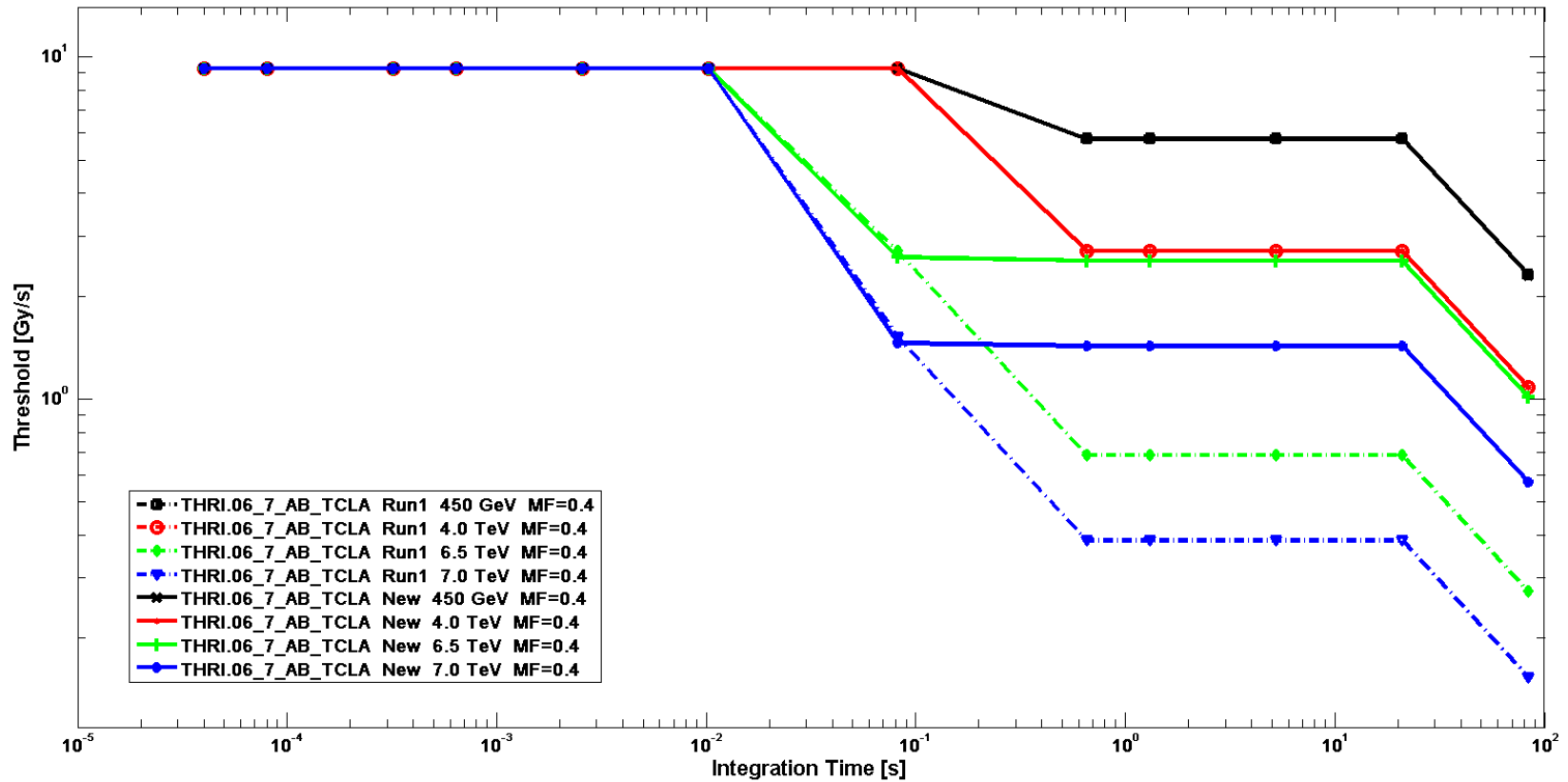
- Only cell 5 MQYs were assigned to a dedicated WS families
- From measurements it was seen that also some cell 6 monitors should be in the WS families

THRI.LS.P1_MQY_WS

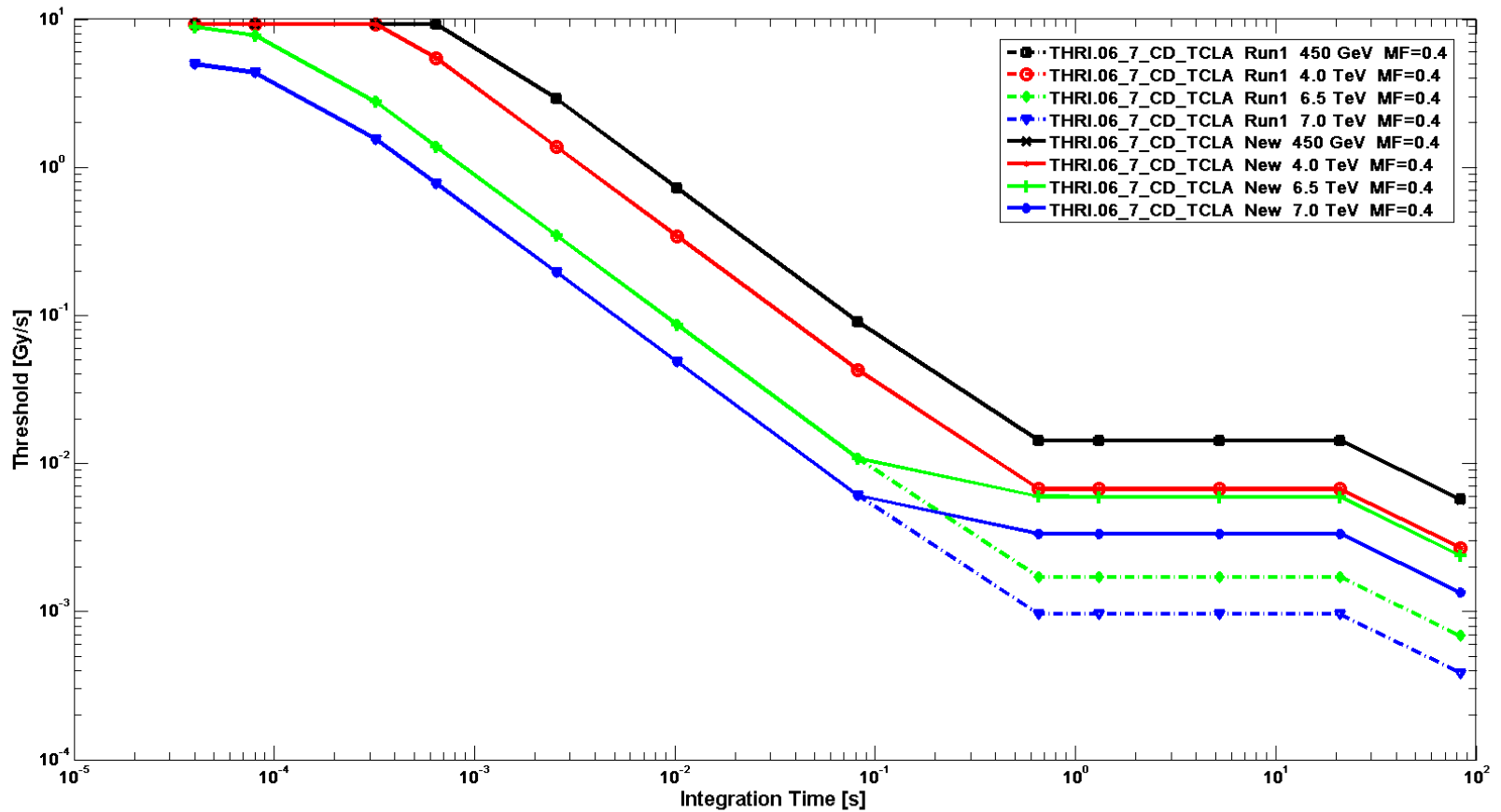


Threshold Plots

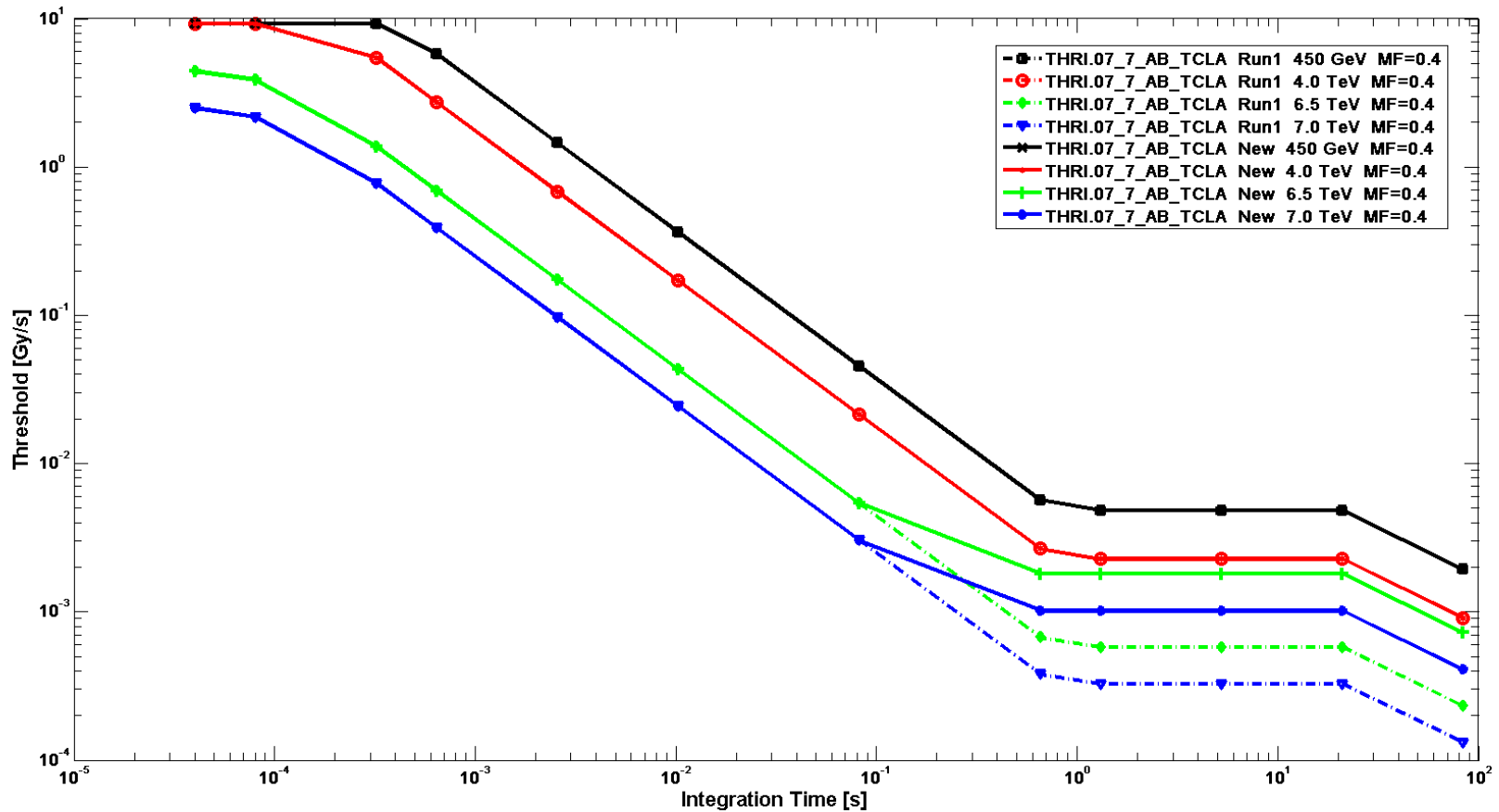
THRI.06_7_AB_TCLA



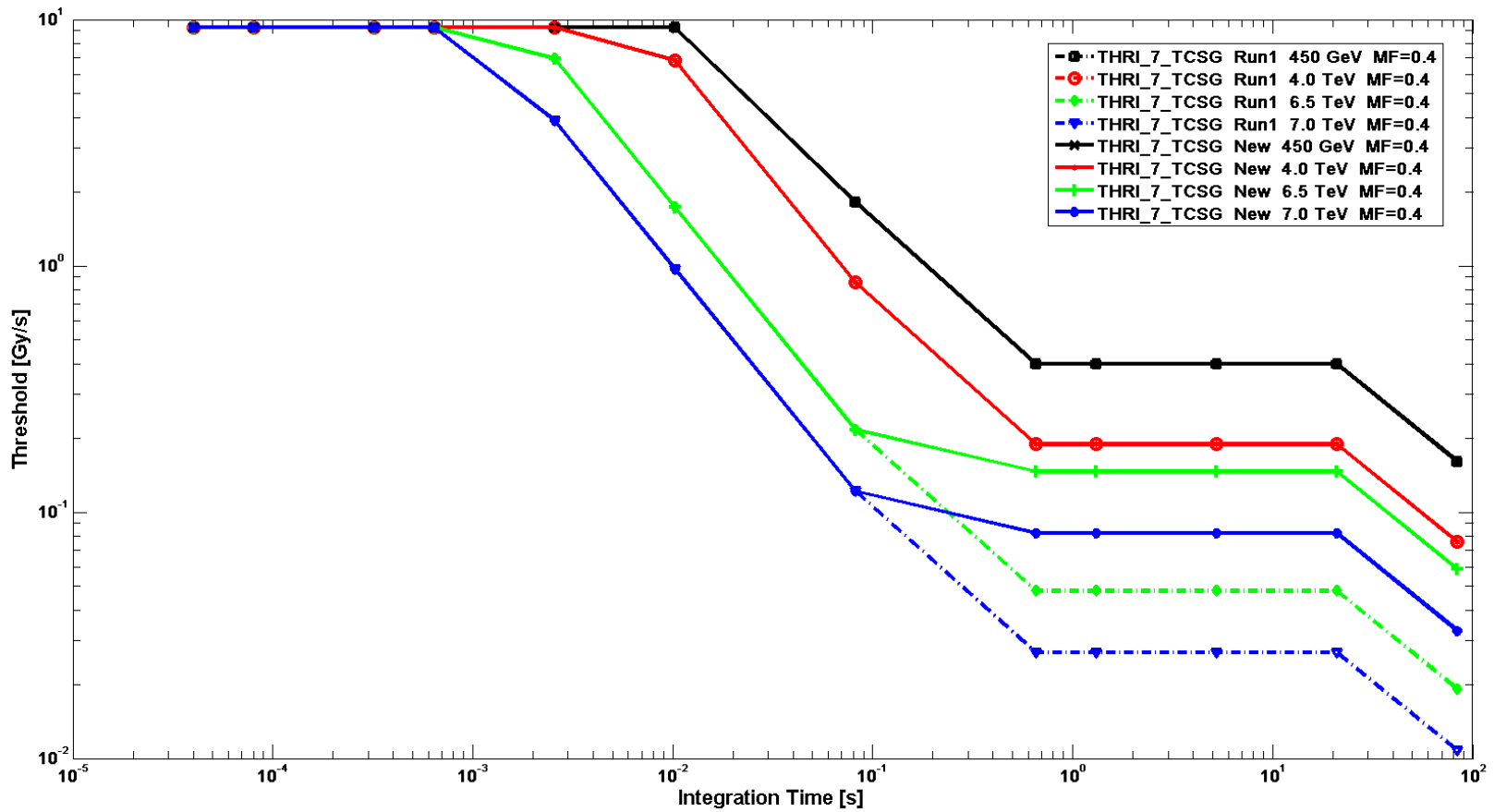
THRI.06_7_CD_TCLA



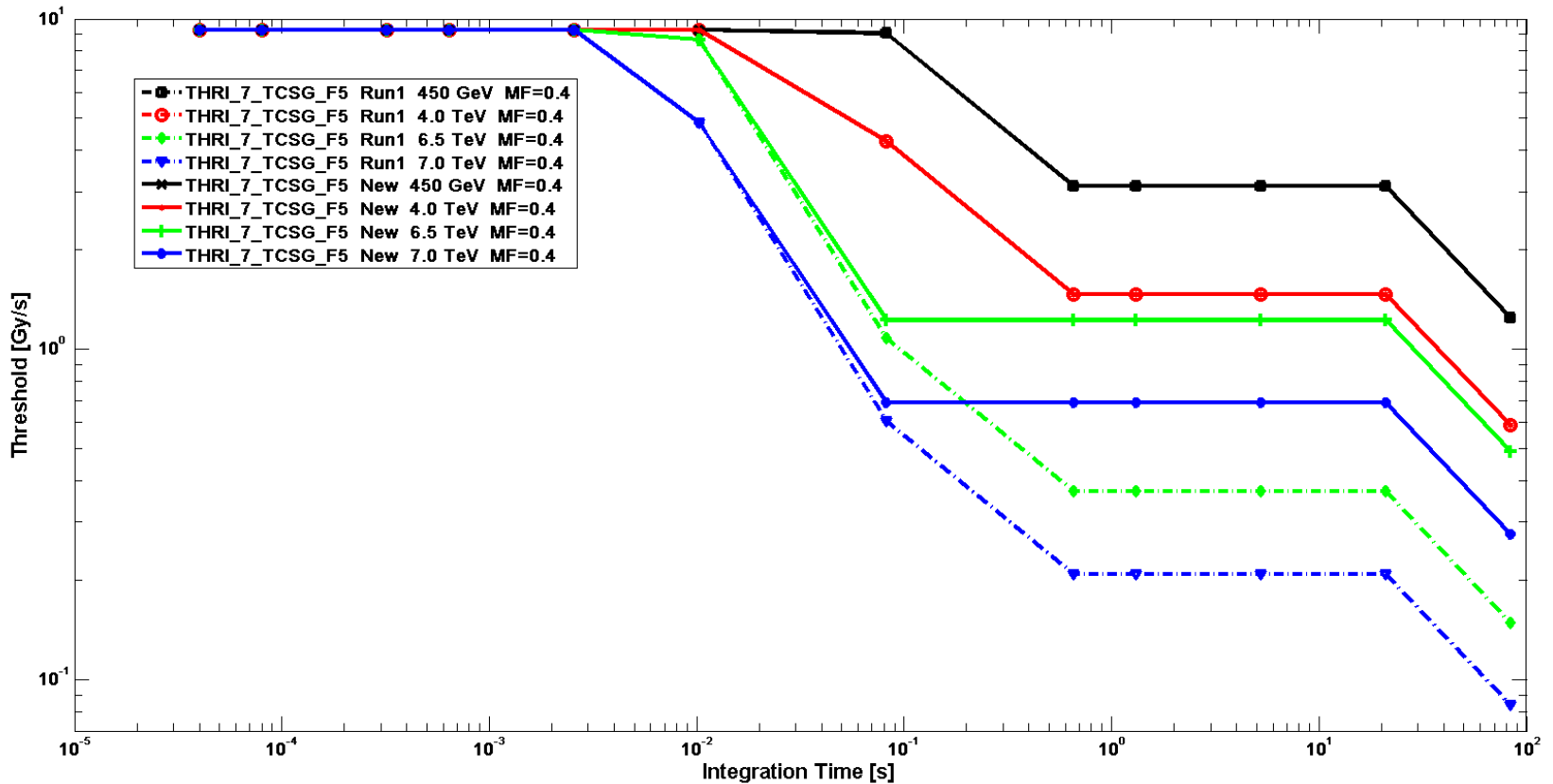
THRI.07_7_AB_TCLA



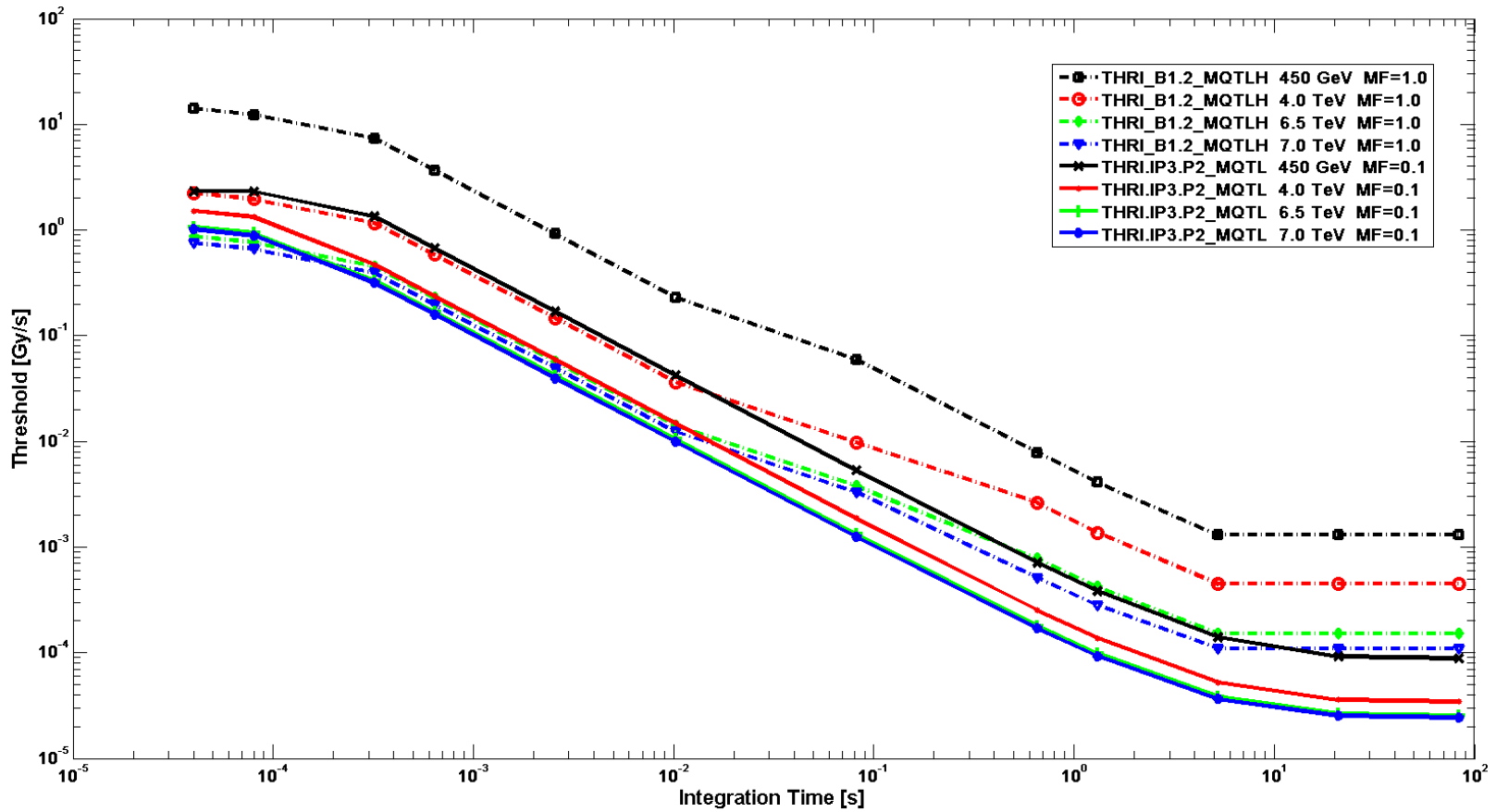
THRI_7_TCSG



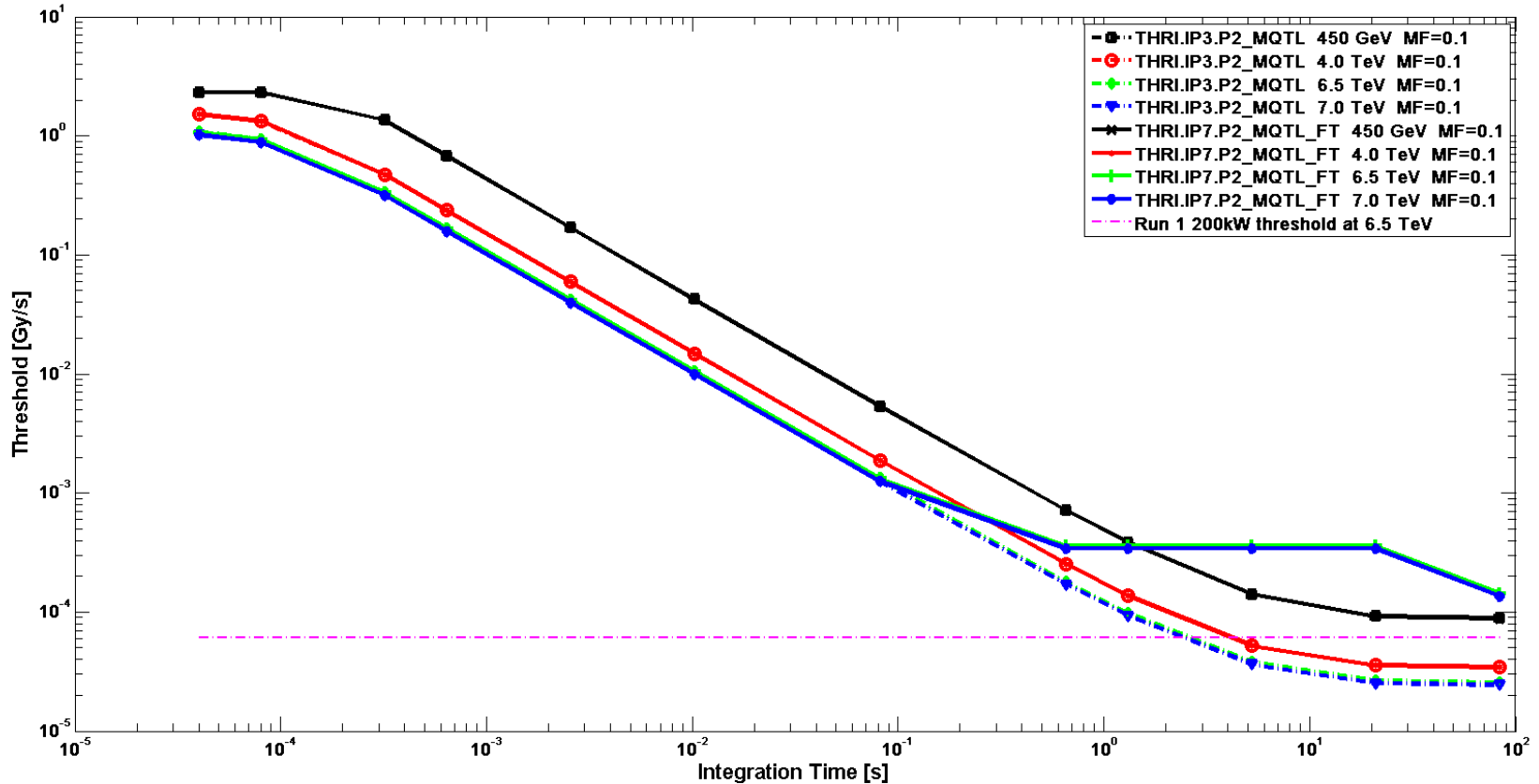
THRI_7_TCSG_F5



THRI.IP3.P2_MQTL



THRI.IP7.P2_MQTL_FT



THRI.LS.P2_MQY_WS

