



Update of DS BLM families

with Run I threshold model

T. Medvedeva

February 27, 2018

- | | |
|----------------|---------|
| • THRI_B1.1_MB | 1 BLM |
| • THRI_B1.2_MB | 85 BLMs |
| • THRI_B1.3_MB | 14 BLMs |
| • THRI_B2.2_MB | 88 BLMs |
| • THRI_B2.3_MB | 14 BLMs |

DS Families

IP1 + IP5

IP2 + IP8

IP3

IP7

IP4 and IP6

Even Loss Fill

Backup slides

Point 1 and 5: 26 LBMs

|P1(left) and |P5(right): No coupled BLMs

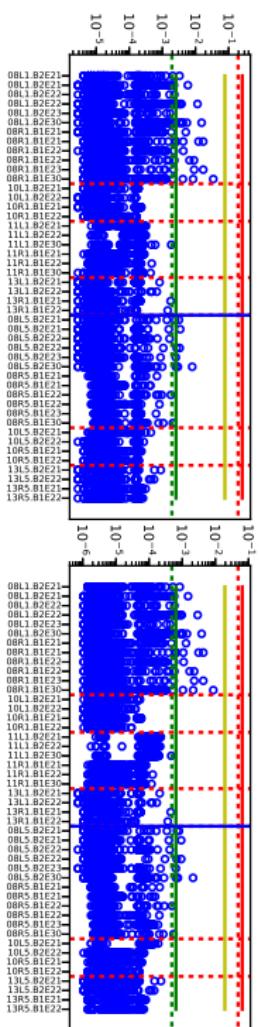
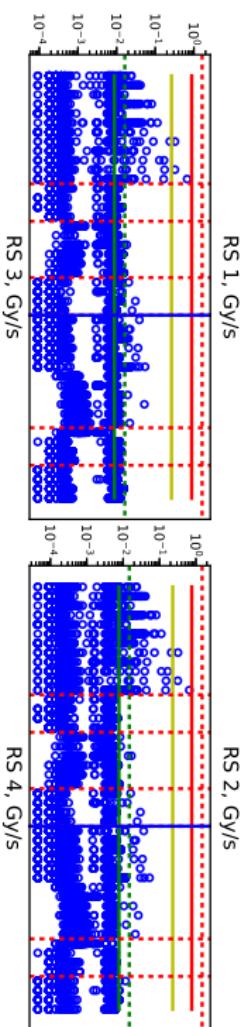
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DS BLM families

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DS Families
|P1 + |P5
|P2 + |P8
|P3
|P7
|P4 and |P6

Even Loss Fill
Backup slides
|P7
|P4 and |P6

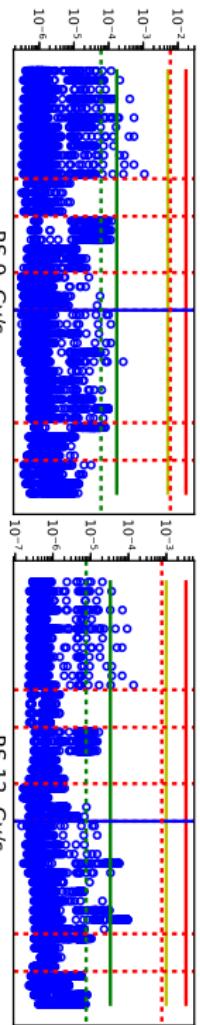


IP1 and IP5

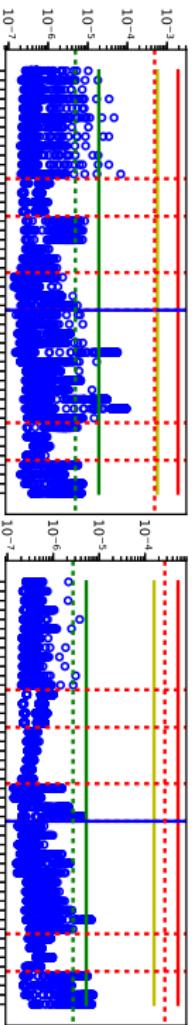
IP1 (left) and IP5 (right): no coupled BLMs

IP1 and IP5

RS 8, Gy/s



RS 9, Gy/s



- Max loss; p-p Runs
- Applied threshold
- 30% Applied threshold
- 1% BFPP Applied threshold

IP2 and IP8

IP2 (left) and IP8 (right): no coupled BLMs

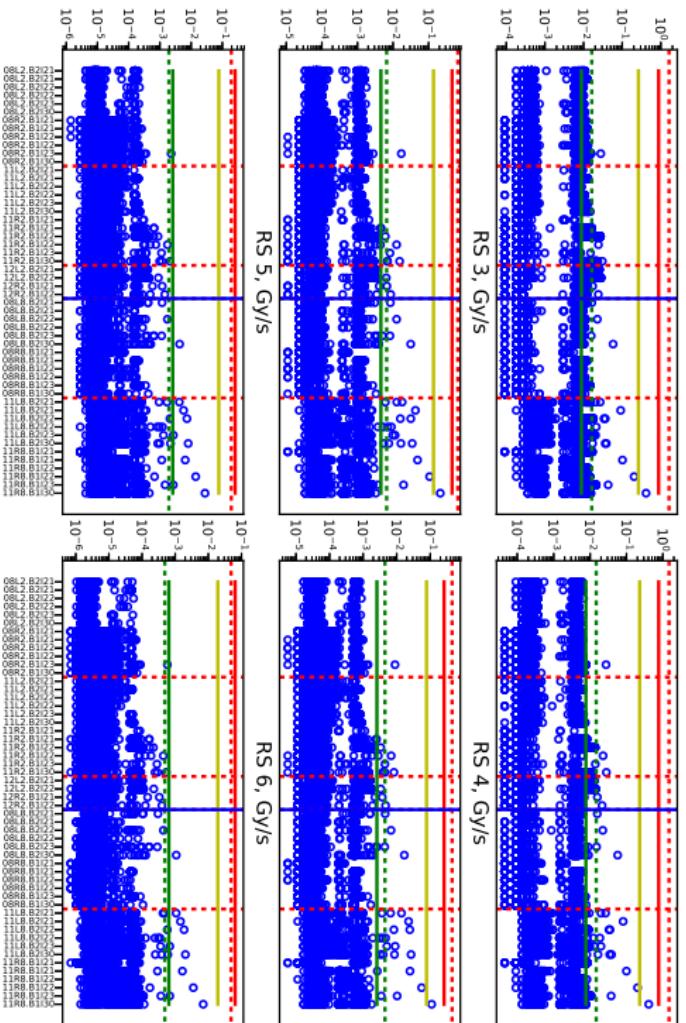
IP2 and IP8

RS 1, Gy/s RS 2, Gy/s

DS Families
IP1 + IP5
IP2 + IP8
IP3
IP7
IP4 and IP6

Even Loss Fill

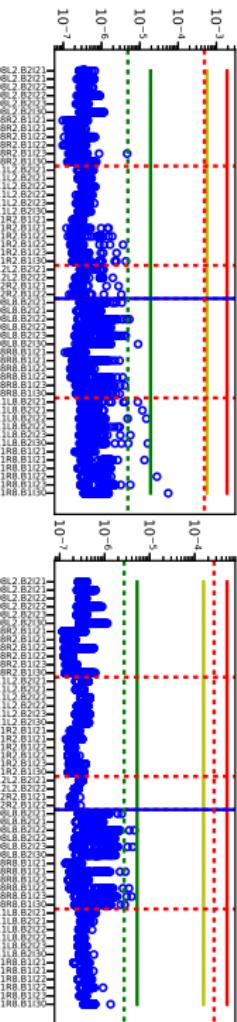
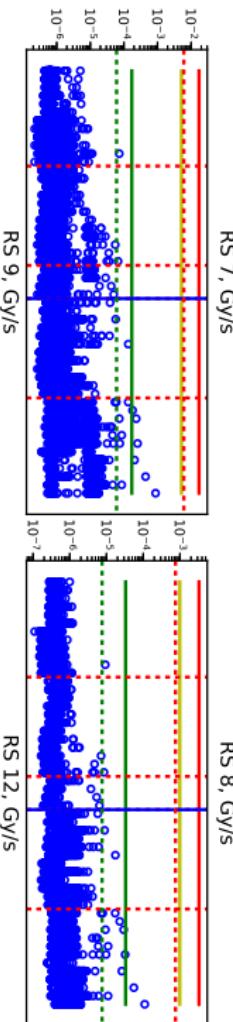
Backup slides



IP2 and IP8

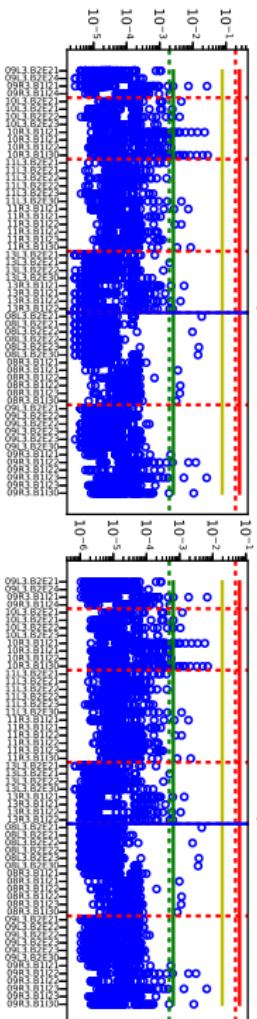
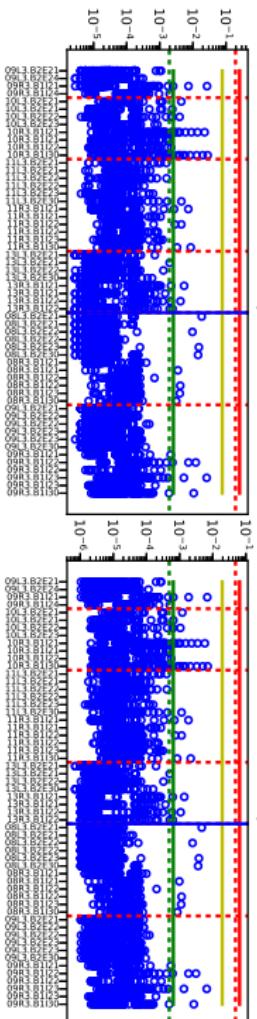
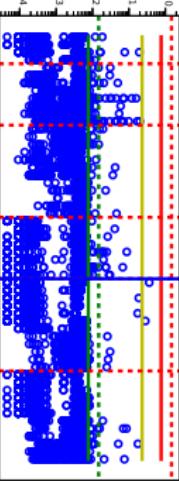
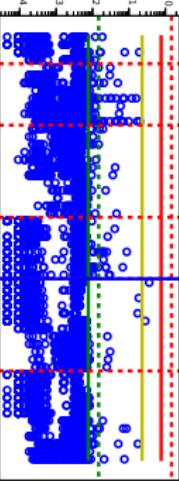
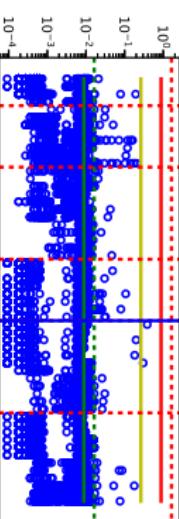
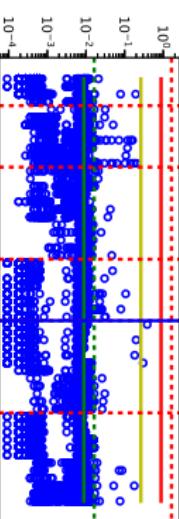
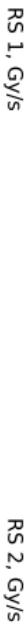
IP2 (left) and IP8 (right): no coupled BLMs

IP2 and IP8



IP3 coupled BLMs (left) and regular BLMs (right)

IP3



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DS Families

IP1 + IP5

IP2 + IP8

IP3

IP7

IP4 and IP6

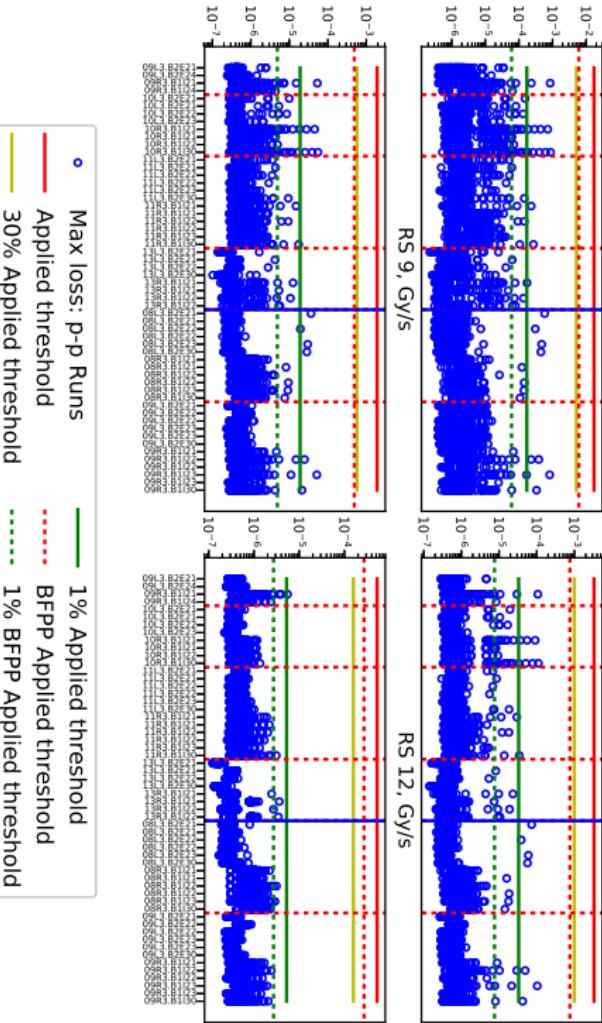
Even Loss Fill

Backup slides

IP3 coupled BLMs (left) and regular BLMs (right)

IP3

RS 7, Gy/s RS 9, Gy/s RS 8, Gy/s RS 12, Gy/s



IP7 coupled BLMs (left) and regular BLMs (right)

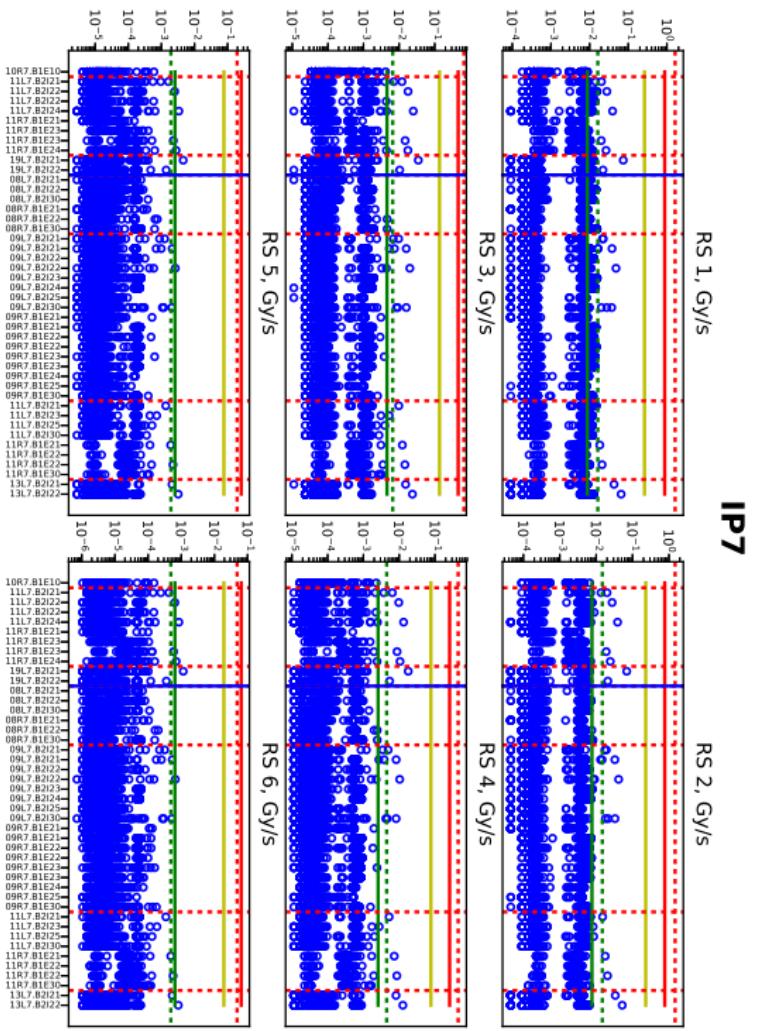
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DS Families
IP1 + IP5
IP2 + IP8

IP3

IP7

IP4 and IP6
Even Loss Fill
Backup slides

IP7 coupled BLMs (left) and regular BLMs (right)

IP7

RS 7, Gy/s

RS 8, Gy/s

DS Families

IP1 + IP5

IP2 + IP8

IP3

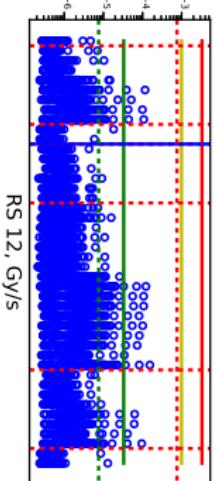
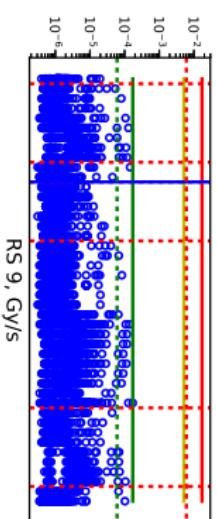
IP7

IP4 and IP6

Even Loss Fill

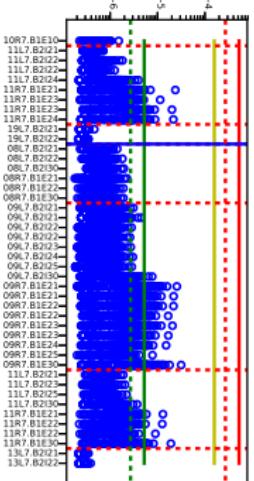
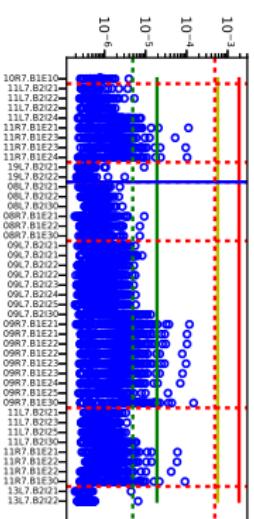
Backup slides

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10⁻¹
10⁻²
10⁻³
10⁻⁴
10⁻⁵
10⁻⁶

RS 9, Gy/s

RS 12, Gy/s

10⁻¹
10⁻²
10⁻³
10⁻⁴
10⁻⁵
10⁻⁶

RS 9, Gy/s

RS 12, Gy/s

10⁻¹
10⁻²
10⁻³
10⁻⁴
10⁻⁵
10⁻⁶

RS 9, Gy/s

RS 12, Gy/s

10⁻¹
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10⁻⁶

- Max loss; p-p Runs
- Applied threshold
- 30% Applied threshold
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IP4 and IP6

IP4 BLMs (left) and IP6 BLMs (right): no coupled BLMs

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DS Families

IP1 + IP5

IP2 + IP8

IP3

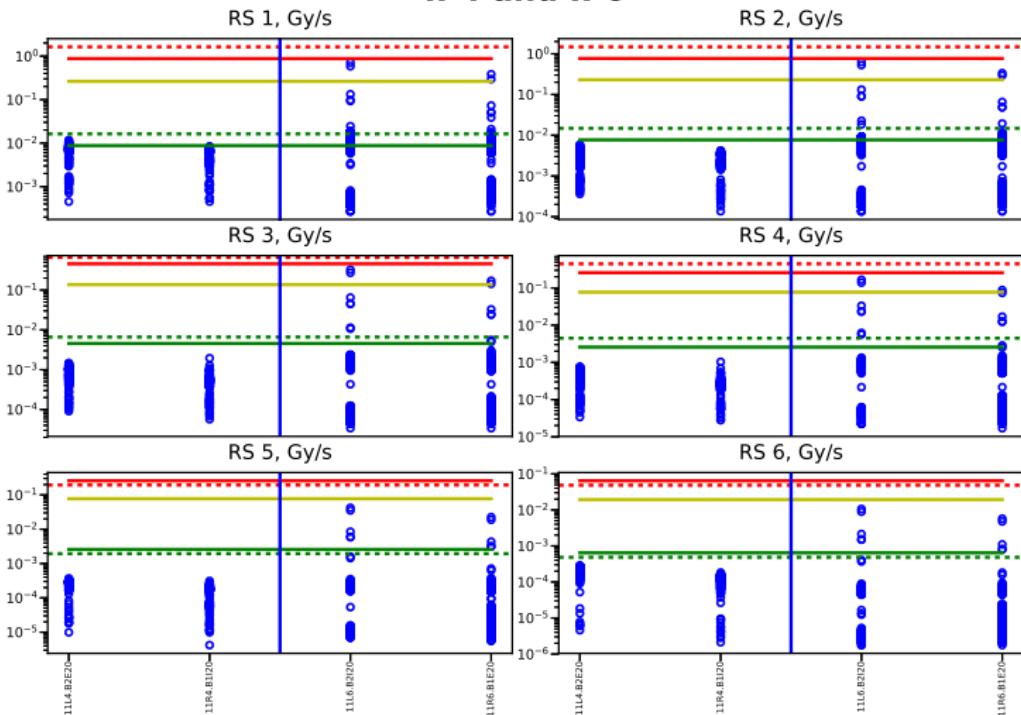
IP7

IP4 and IP6

Even Loss Fill

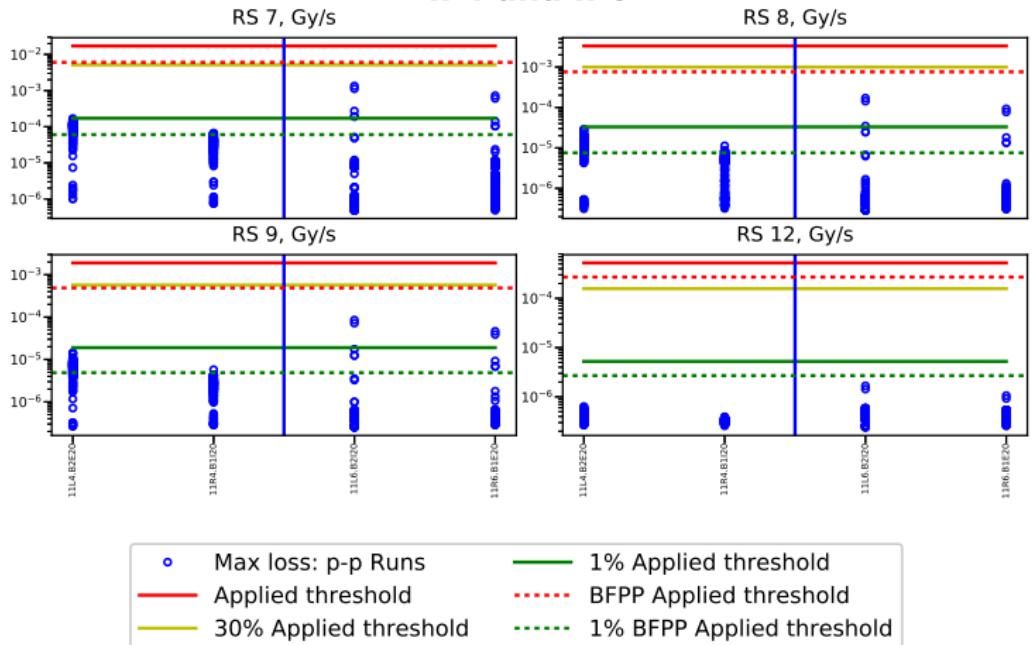
Backup slides

IP4 and IP6



IP4 BLMs (left) and IP6 BLMs (right): no coupled BLMs

IP4 and IP6



DS Families

IP1 + IP5

IP2 + IP8

IP3

IP7

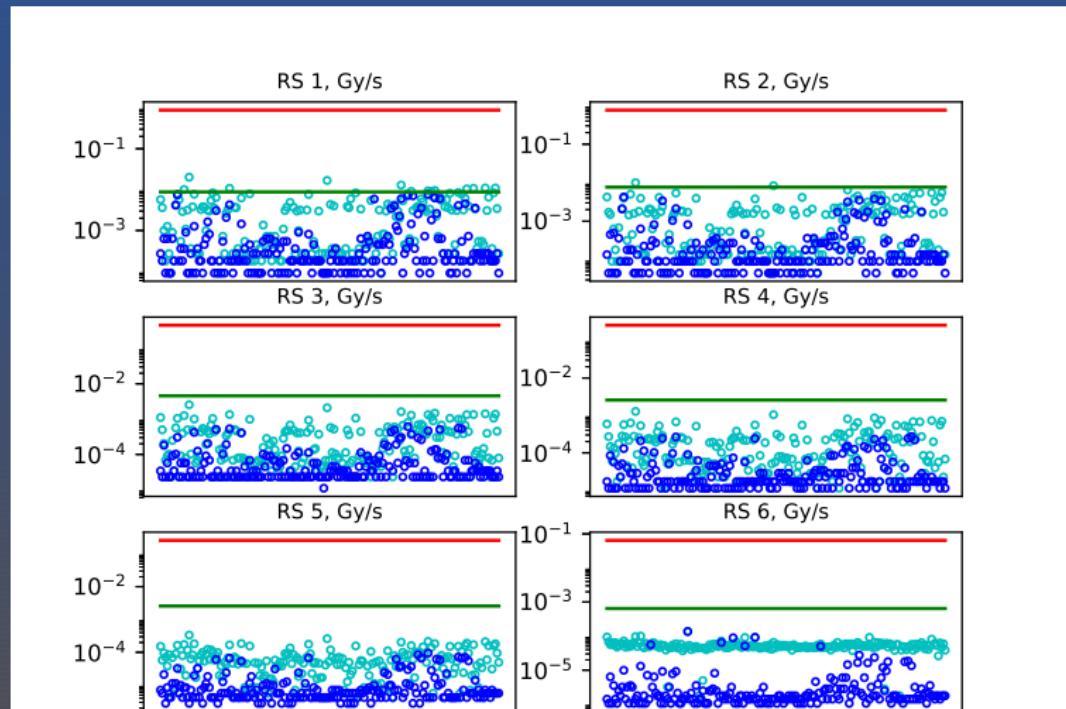
IP4 and IP6

Even Loss Fill

Backup slides

Fill with Even Losses in High RSs

It was identified as first fill in 2016 with "STABLE" beams (and first "STABLE" beams segment in that fill): fill 4725 on 2016/03/18 (16:28:32 - 17:05:21)



DS Families

IP1 + IP5

IP2 + IP8

IP3

IP7

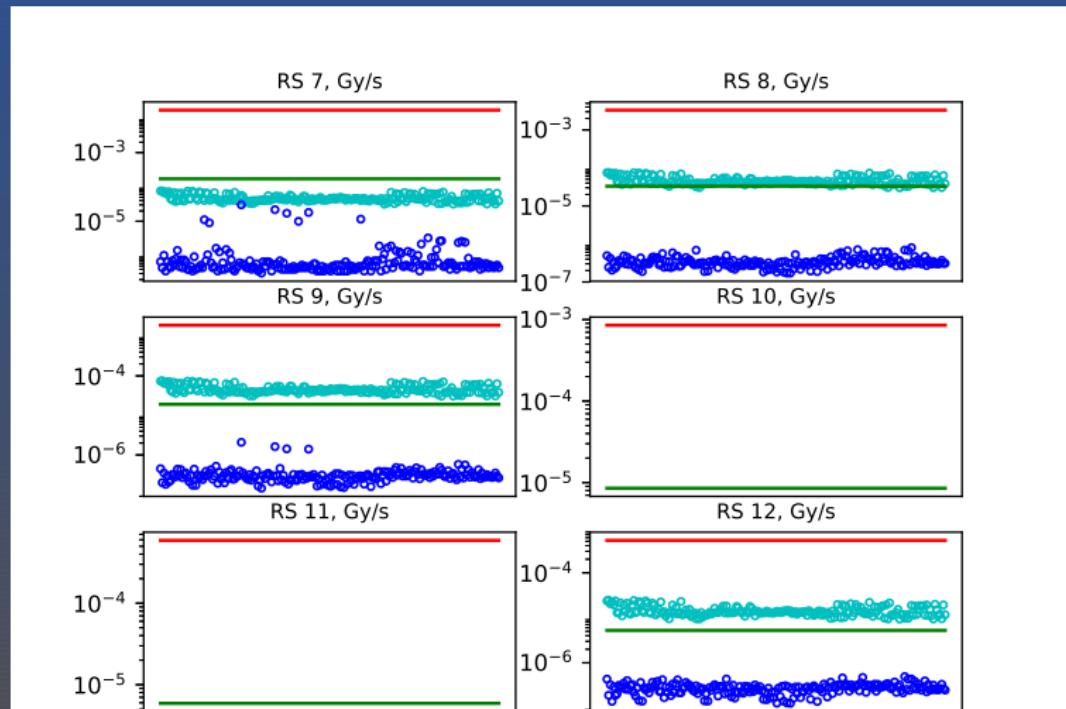
IP4 and IP6

Even Loss Fill

Backup slides

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DS Families

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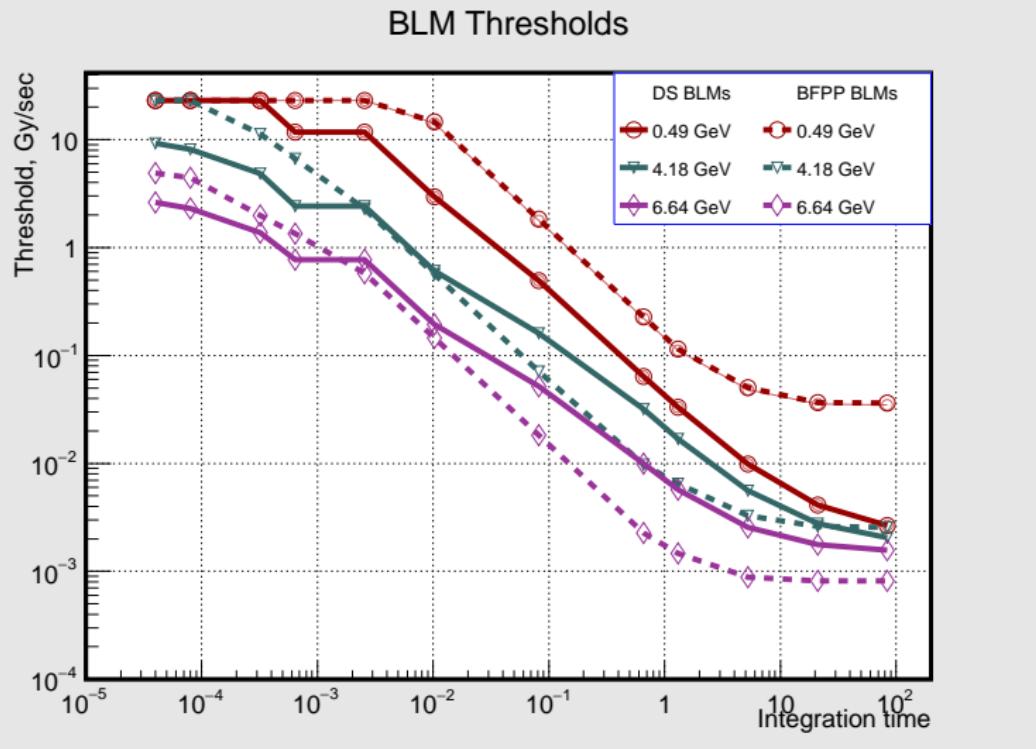
IP4 and IP6

Even Loss Fill

Backup slides

Comparison to BFPP BLM Family

Thresholds are the same for all five families.



DS Families

IP1 + IP5

IP2 + IP8

IP3

IP7

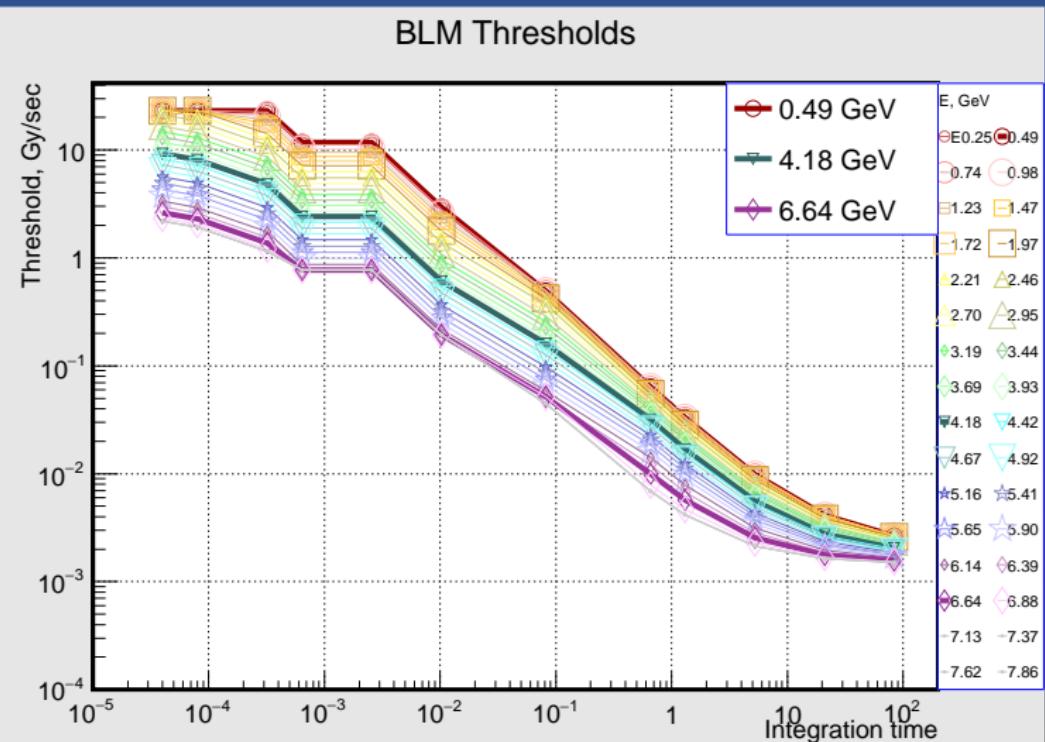
IP4 and IP6

Even Loss Fill

Backup slides

Current Master Thresholds of the DS BLMs

Thresholds are the same for all five families.



DS Families

IP1 + IP5

IP2 + IP8

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IP7

IP4 and IP6

Even Loss Fill

Backup slides