

The Grand Challenge for proposed upgrade of LHCb experiment

- › **500 Data sources each generating data at 100 Gbps**
- › **Requires an FPGA DAQ module that**
 - **handles data generated by the experiment**
 - **dynamically adapt to potential inadequacies of other components**
 - **maintain real time operation while at the same time maintaining system stability and overall data integrity**

What the poster talks about

- **Challenges specific to modules**
 - Those that are due to the data
 - And those that arises due to the system
- **The solution to these challenges**
 - Balancing the different needs (Real-Time, Data Integrity and Stability)
 - The trade-offs accepted in achieving this balance
- **Discuss the results**

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 - Balancing the different needs (Real-Time, Data Integrity and Stability)
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- › **And the results**
 - **Was 100 Gbps achieved? Resource usage? Visit Poster PS 3-27 to find out!**