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## Alignment data streams for the ATLAS Inner Detector.

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The ATLAS experiment uses a complex trigger strategy to be able to achieve the necessary Event Filter rate output, making possible to optimize the storage and processing needs of these data. These needs are described in the ATLAS Computing Model which embraces Grid concepts. The output coming from the Event Filter will consist of four main streams: the physical stream, express stream, calibration stream, and a diagnostic stream. The calibration stream will be transferred to the Tier-0 facilities which will provide the prompt reconstruction of this stream with a minimum latency of 8 hours, producing calibration constants of sufficient quality to permit a first-pass processing. The Inner Detector community is developing and testing an independent common calibration stream selected at the Event Filter after track reconstruction. It is composed of raw data, in byte-stream format, contained in ROB's with hit information of the selected tracks, and it will be used to derive and update a set of calibration and alignment constants after every fill. This option was selected because makes use of the Byte Stream Converter infrastructure and possibly give us a better bandwidth usage and storage capability's. Processing is done using specialized algorithms running in Athena framework in dedicated Tier-0 resources, and the alignment constants will be stored and distributed using the COOL conditions database infrastructure. The work is addressing in particular the alignment requirements, the needs for track and hit selection and the timing issues.

**Primary authors:** Dr AMORIM, Antonio (Faculdade de Ciencias - Universidade de Lisboa); Mr VENDA PINTO, Belmiro Antonio (Faculdade de Ciencias - Universidade de Lisboa); Dr SCHIECK, Jochen (Max-Planck-Institut für Physik); Dr ELSING, Markus (CERN); Mr PEREIRA, Paulo (Faculdade de Ciencias - Universidade de Lisboa); Dr HAWKINGS, Richard (CERN); Dr GARCIA, Salvador (Instituto de Física Corpuscular, València)

**Co-authors:** Dr ANJOS, Andre (University of Wisconsin); Dr MA, Hong (Brookhaven National Laboratory (BNL)); Dr BAINES, John (Rutherford Appleton Laboratory); Dr SCHAFFER, R.D. Schaffer (LAL Orsay, France)

**Presenter:** Mr VENDA PINTO, Belmiro Antonio (Faculdade de Ciencias - Universidade de Lisboa)

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