Update from the SCT speakers committee

Saverio D'Auria – University of Glasgow

- Conferences in 2013
- Future conferences
- Evolutions of SCT talks (or lack of)

Disclaimer: this does not include any upgrade-specific work

SCT Talks in 2013

Conference	Conf Date	Type	Proceedings	Presenter	Inst.
VCI2013 (Austria)	11 Feb	Poster SCT	Done	G. Barone	Geneva
ANIMMA (France)	23 June	Talk SCT	Done	N. Barlow	Cambridge
RD50 Albqrq (USA)	3 June	Talk SCT	*None*	T. Kondo	KEK
RD13 (Italy)	3 July	Talk SCT	Done	P. Dervan	Liverpool
HSTD (Japan)	1 Sept.	Talk SCT	Overdue	S. McMahon	RAL
PIC2013 (China)	3 Sept	Talk SCT	In Prep.	Z. Liang	Oxford
Vertex (Germany)	16 Sept	Talk SCT+PIX	In Prep.	E. Stanecka	Cracow
TWEPP-13 (Italy)	23 Sept	Talk SCT Poster SCT	Waiting appr Waiting appr	T. Weidberg P. Rose	Oxford UCSC
ICATPP (Italy)	23-Sep	Talk SCT	Waiting appr	A. Robichaud	Oxford
IPRD13 (Italy)	7 Oct	Talk SCT	In prep.	B. Gallop	RAL
IEEE-NSS S.Korea	27 Oct	Poster SCT	written	P. Pani	NIKHEF

General SCT notes and publications

ATL-COM-INDET-2013-054 Pat Ward: Intrinsic Hit Efficiency in 2012
ATL-COM-INDET-2013-043 Alpigiani: Backplane resistance
ATL-COM-INDET-2013-034 Alpigiani: Lorentz Angle measurements
ATL-COM-INDET-2013-026 Garcia Argos: dE/dx

Overall SCT/INDET pub/doc statistics

- Total # of ATLAS Com Indet: 70
- # of approved SCT PROC: 3
- # of approved SCT SLIDE: 12
- # of approved INT: 10
- # of approved PUB: 2

No new conferences 2013
Overall 2013:
SCT presented 9 talks and 2 posters at international conferences
One abstract was rejected (PSD, Paris).
Proceedings:
1 is overdue
3 are being approved,
5 in prepration,
3 published

ATL-INDET-PROC-2013-009 Dervan-Kondo
ATL-INDET-PROC-2013-007 Barlow
ATL-INDET-PROC-2013-004 Barone
========= 2012 conferences ========
ATL-INDET-PROC-2013-002 Stanecka (PIC)
ATL-INDET-PROC-2013-002 Yacoob (Vertex)

Difficulties with conferences:

- Some conferences are not used to large collaborations (PSD)
- Identification of presenter/author difficult to explain (PSD, Como)
- Payment of fee required before being able to submit the abstract (Como)
- Proceedings required before the end of conference or immediately thereafter (IEEE,Como)

Central ATLAS intervention was required in some case, to agree a common treatment for all Atlas papers.

Conferences for 2014

26/2 Trento workshop @ Genova (no proceedings)
2/6 TIPP @ Amsterdam
7/9 PSD @ Surrey

Expect also Vertex, Florence, RD50, RD13 ~ same number as 2013

- Our “standard” abstract is becoming old
- Talks being downgraded to poster contributions
- Need to propose study-specific talks for performances.

- Connect conference presentations to performance studies.
- Welcome the note at the end of the “service task”. Will help to identify speakers.
- Chair of the performance group should be in speakers committee ex-officio.

Latest SCT Abstract

We report on the operation and performance of the ATLAS Semi-Conductor Tracker (SCT), which has been functioning for 3 years in the high luminosity, high radiation environment of the Large Hadron Collider at CERN. The SCT is constructed of 4088 silicon detector modules, for a total of 6.3 million strips.
Each module operates as a stand-alone unit, mechanically, electrically, optically and thermally. The modules are mounted into two types of structures: one barrel, made of 4 cylinders, and two end-cap systems made of 9 disks. The SCT silicon micro-strip sensors are processed in the planar p-in-n technology. The signals are processed in the front-end ABCD3TA ASICs, which use a binary readout architecture. Data is transferred to the off-detector readout electronics via optical fibres. We find 99.3% of the SCT modules are operational, the noise occupancy and hit efficiency exceed the design specifications; the alignment is very close to the ideal to allow on-line track reconstruction and invariant mass determination. We will report on the operation and performance of the detector including an overview of the issues encountered. We observe a significant increase in leakage currents from bulk damage due to non-ionizing radiation and make comparisons with the predictions. We will also cover the time evolution of the key parameters of the strip tracker, including the evolution of noise and gain, the measurement of the Lorentz angle and the tracking efficiency in the harsh LHC environment. Valuable lessons for future silicon strip detector projects will be presented.