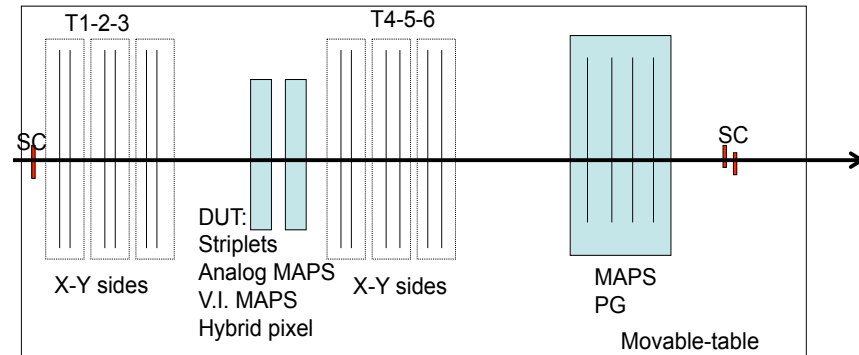


SVT (I)

Testbeam @CERN starting next week

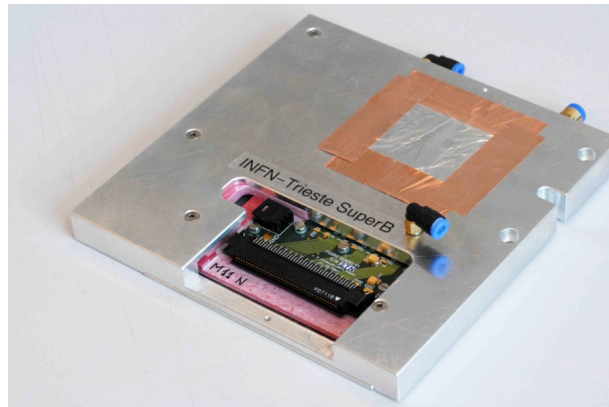
- Most of the SVT group working hard over the summer to get things ready
 - Thanks to S. Bettarini for the organization
- Several pixel structures and striplets on test



New flexibility implemented in DAQ system (Bologna) to test all the different DUT's

Analysis team (Pi+BO+MI) is getting the new code ready

5 new telescope modules with FSSR2 readout built in Trieste to have a 3+3 telescope configuration.



More robust movable table (Torino)

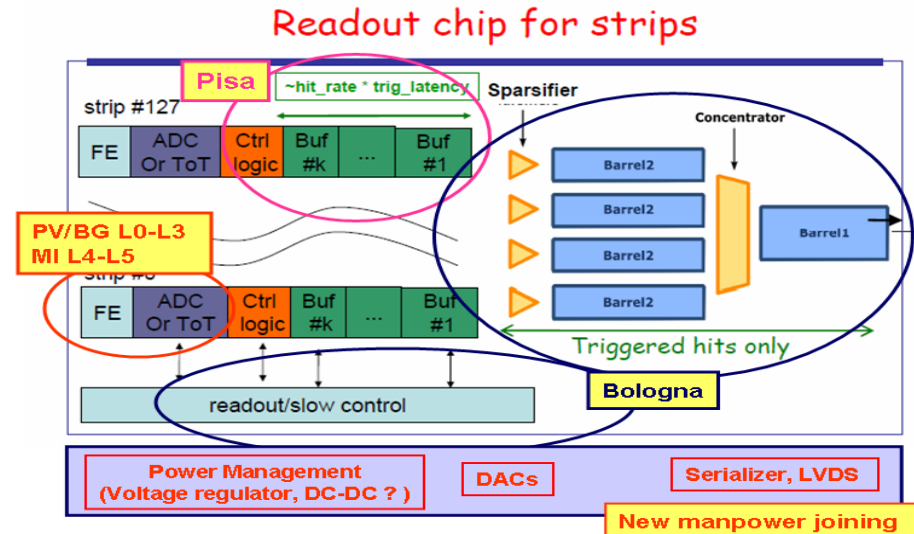


SVT (II)

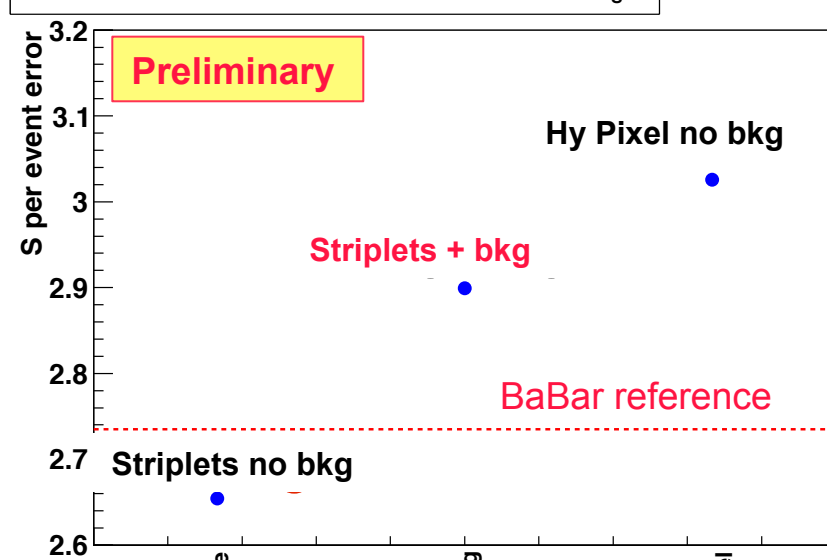
Progress on Baseline configuration (Stripleets L0+L1-L5 design)

Readout chips for striplets/strip:

- ▶ detailed plan for chip development by Italian groups presented to INFN.
 - ▶ Develop fast (L0-L3) and slow (L4-5) channels & adapt readout architecture used for pixel.
 - ▶ Full VHDL simulation for TDR.
 - ▶ Prototypes chips in 2012 & 2013
 - ▶ Production run in 2014



Time-dependent analysis results for $B^0 \rightarrow J/\psi K_S^0$



First preliminary results on striplets performance in high background with Fastsim

- ▶ Hits from background pairs added to signal for time dependent analysis.
 - ▶ Still safety factor not included on back rates.
- ▶ Checks on fundamental quantities still to be done and several technical problems need to be fixed to perform systematic studies.

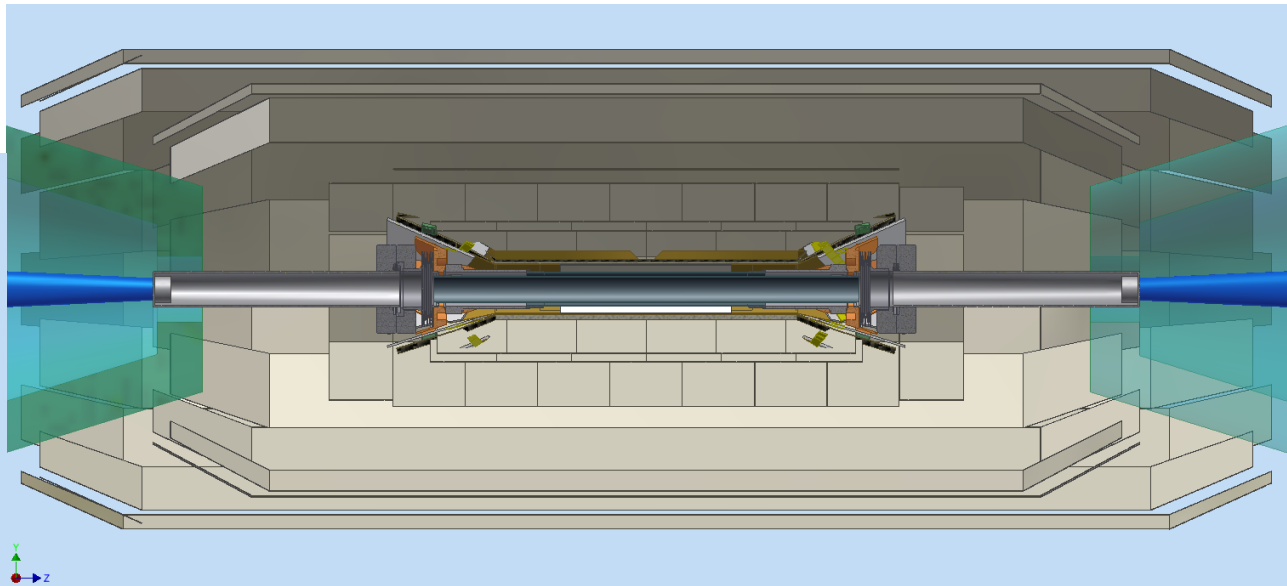
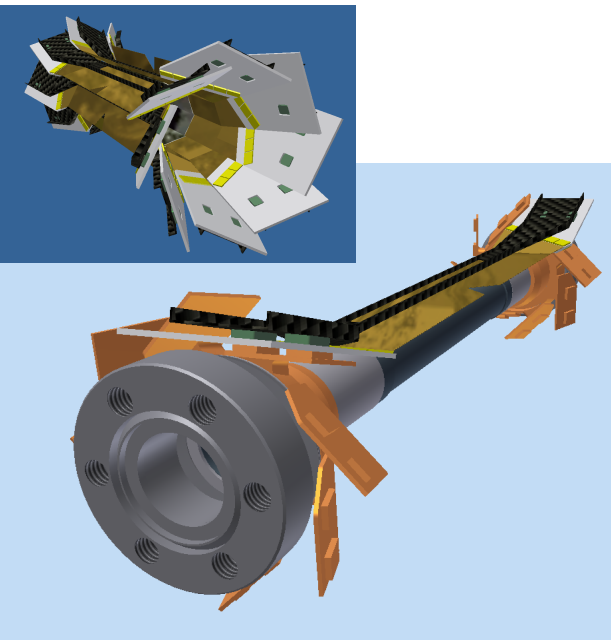
SVT (II)

Background simulation:

- ▶ Strip detail implemented in Bruno for a more accurate rate calculation
- ▶ Very useful contribution from Trieste group to cross check results and get more solid background estimates!
- ▶ Distributions of cluster multiplicity and energy deposited/strip will be provided as input for readout chip simulation

Layer	RO PitchZ (or +45°) μm	Cenci Rate Z or +45° (MHz / cm ²)	Rate Z or +45° (MHz / cm ²)	RO Pitch φ (or -45°) μm	Cenci Rate φ or -45° (MHz / cm ²)	Rate φ or -45° (MHz / cm ²)
0	50	29.9	24.3	50	23.3	24.3
1	100	0.7	0.93	50	1.5	1.61
2	100	0.35	0.4	55	0.72	0.73
3	100	0.097	0.12	55	0.19	0.19
4	210	0.0076	0.0036	100	0.012	0.007
5	210	0.0041	0.0024	100	0.006	0.005

Mechanics: Layer0 design with stripjets revised and L1-L5 module design started



SVT-TDR subchapters & editors

1. Vertex Detector Overview (12) - G. Rizzo
2. Backgrounds (4) - R. Cenci
3. Detector Performance Studies (6) - N. Neri
4. Silicon Sensors (8) - L. Bosisio
5. Fanout Circuits (8) - L. Vitale
6. Electronics Readout (28)
 1. Readout Chips (10) - V. Re
 2. Hybrid Design (10) - M. Citterio
 3. Data Transmission (8) - M. Citterio
 4. Power Supplies (1??) - ???SVT DAQ (M. Villa) will be in the ETD section
7. Mechanical Support & Assembly (14) - S. Bettarini/F. Bosi
8. Layer0 pixel upgrade options (10) - G. Rizzo/L. Ratti/ + others
9. Services, Utilities (2) -??

- Chapter editors produced a first draft of detailed outline
- The first estimate of pages is too high: TOT ~ 92!
- We should try to end up with ~60-70 pages max.

SVT Parallels



11:00->12:30 Parallel 1 - SVT (Convener: Giuliana Rizzo (*PI*)) (Francis Bancroft Bldg - room 240 (FB))

Description:

EVO Details:

<http://evo.caltech.edu/evoNext/koala.jnlp?meeting=eBele2vtv9aaavlvauIB>

The web password is superb

People can connect via the EVO phone bridge, using an appropriate number from

<http://evo.caltech.edu/evoGate/telephone.jsp> and the following codes:

Phone Bridge ID: 10 9383 Phone Bridge Password: 5939

- | | | |
|-------|--|------------------------------------|
| 11:00 | Introduction (10') | Giuliana Rizzo (<i>PI</i>) |
| 11:10 | Pixel & Strip FE Electronics Update (20') | Valerio Re (<i>PV</i>) |
| 11:30 | Update on activities in Bologna (20') | Filippo Maria Giorgi (<i>BO</i>) |
| 11:50 | Stripleets performance in high background conditions (20') | Nicola Neri (<i>MI</i>) |

14:00->16:30 Parallel 2 - SVT (Mostly devoted to Mechanics discussion - room 240

- | | | |
|-------|---|------------------------------|
| 14:00 | Update on activities in UK (20') | Fergus Wilson (<i>RAL</i>) |
| 14:20 | SVT Mechanics (20') | Filippo Bosi (<i>PI</i>) |
| 14:40 | Technical Discussion on SVT Mechanics (50') | |

16:00->17:30 Parallel 3 - SVT (Convener: Giuliana Rizzo (*PI*)) (Francis Bancroft Bldg - room 240 (FB 240))

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|-------|---|------------------------------|
| 16:00 | Update on HDI design and periphel electronics (20') | Mauro Citterio (<i>MI</i>) |
| 16:20 | Update on activities in Trieste (phone) (20') | Carlo Stella (<i>TS</i>) |
| 16:40 | Update on background simulation (phone) (20') | Riccardo Cenci (<i>PI</i>) |