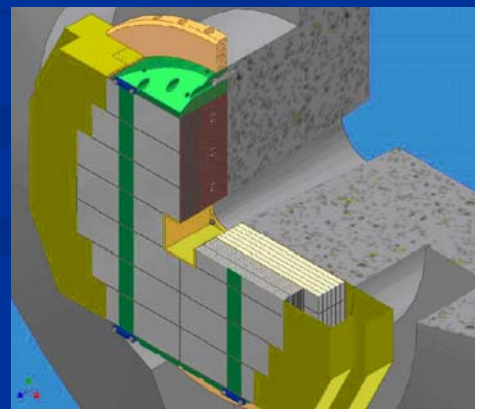
ERRATA

Proposal for the PHENIX Nosecone Calorimeter An Overview

Richard Seto

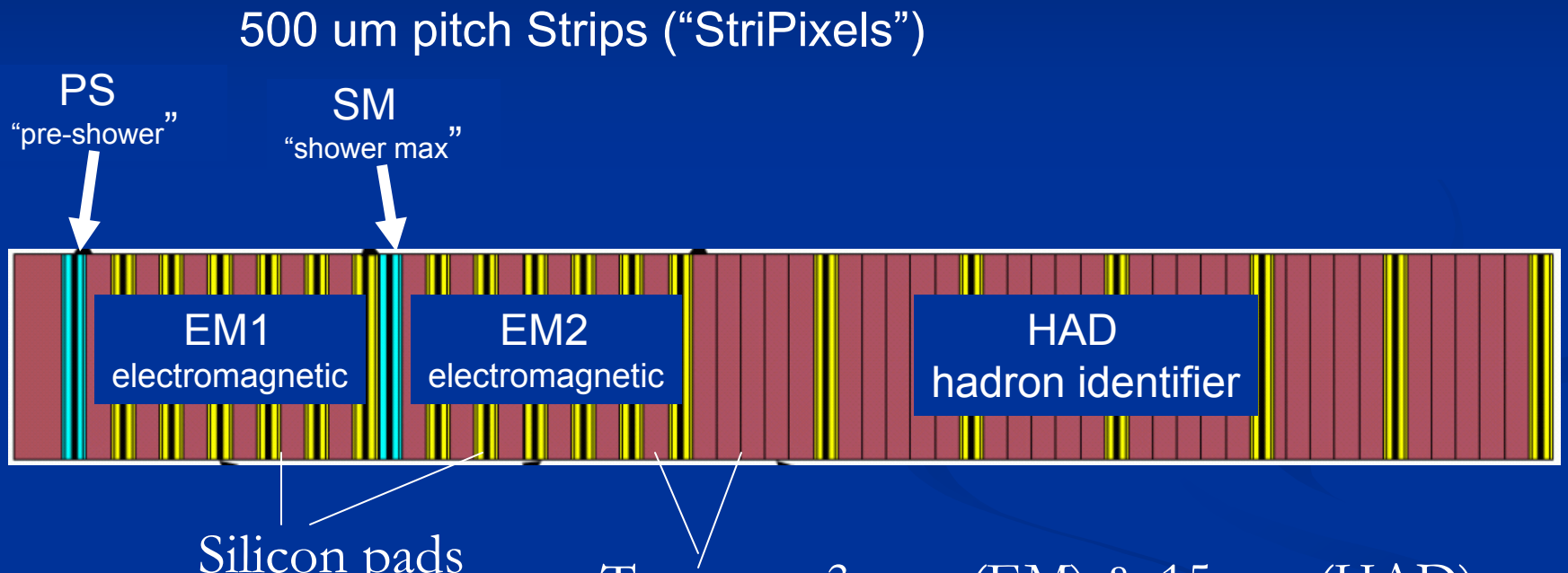
BNL

March 14, 2006



errata: NCC overview slide 9

What is it?
The parts of the NCC



Depth: $42X_0$ ($1.6\,\lambda_{ABS}$)

$$\frac{\Delta E}{E} = 4\% + \frac{18\%}{\sqrt{E}}$$

in talk by Edouard/Andrey

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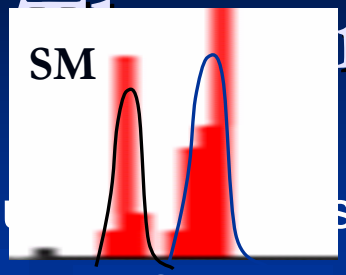
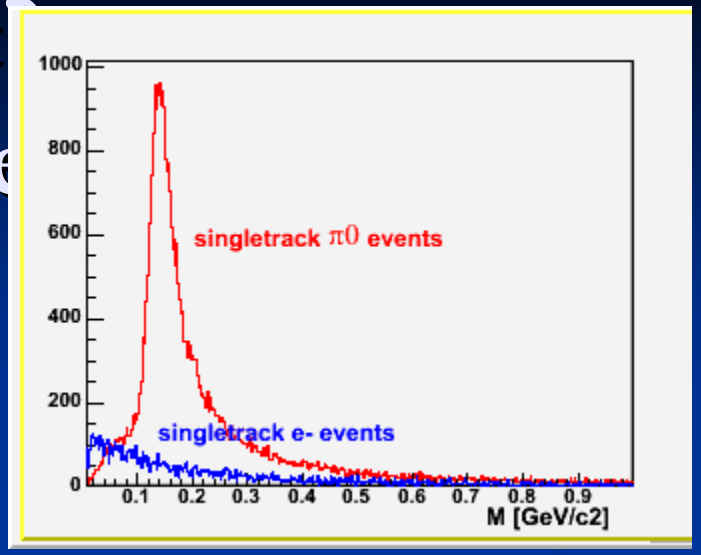
What is it

rts of the

The PS and SM Detectors: identifying π^0s



500 u s ("StriPixels")



PS
"pre-shower"

SM
"shower max"

30 GeV
π^0

HAD
hadron identifier

Silicon pads
1.5x1.5 cm²

Tungsten 3 mm (EM) & 15mm (HAD)

Depth: $42X_0$ ($1.6\ \lambda_{ABS}$)

$$\frac{\Delta E}{E} = 4\% + \frac{18\%}{\sqrt{E}}$$

in talk by Edouard

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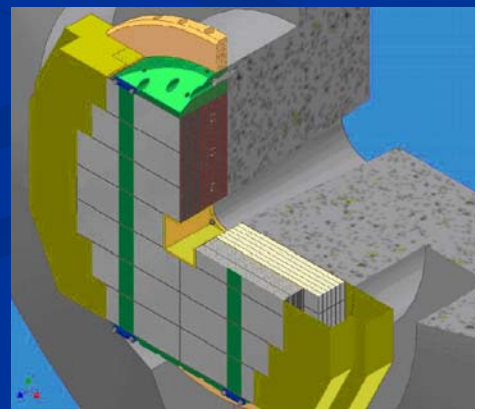
The PHENIX NCC Management, Budget Schedule

Richard Seto
UCR

BNL Review
March 14-16, 2006



PHENIX

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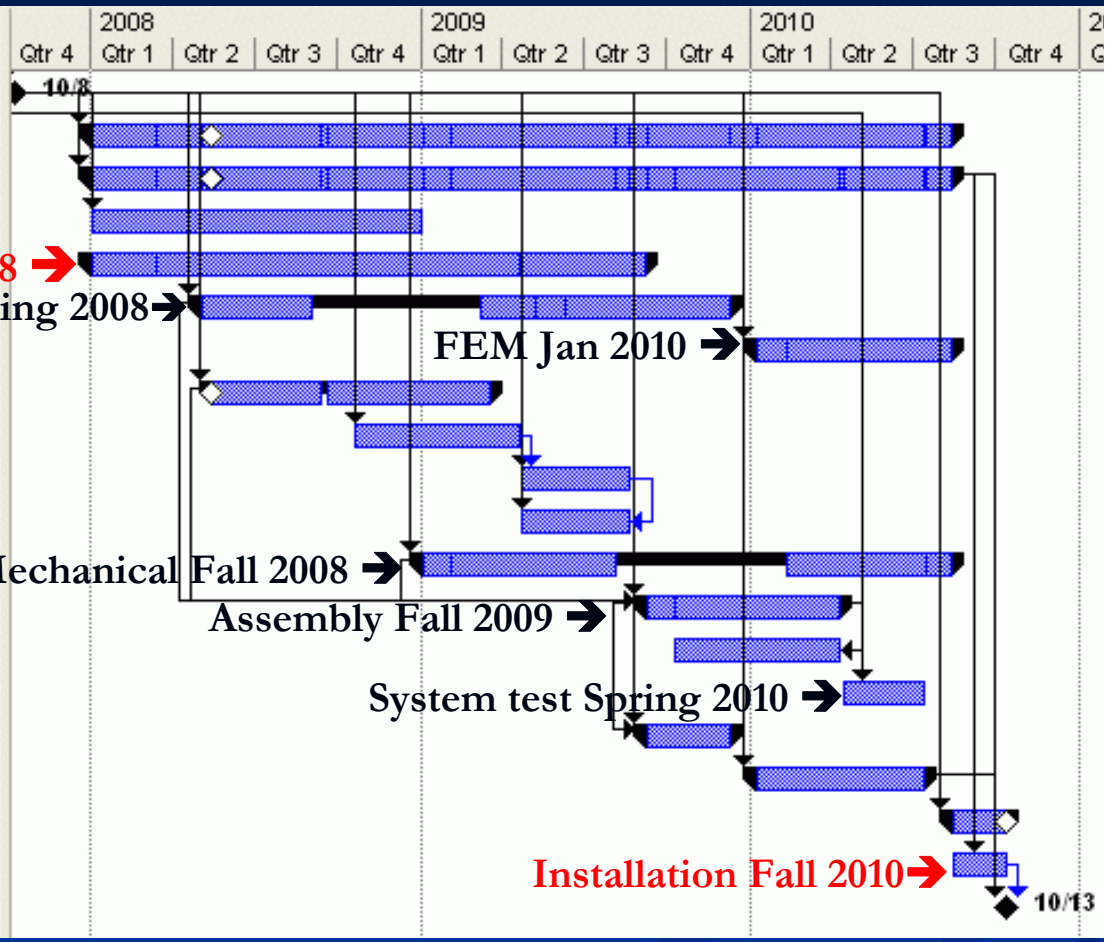
Rolled up

	Task Name
107	**Final NCC Design Review**
108	**NCC Construction**
109	**Nose Cone Calorimeter Unit North)**
110	Stock components (connectors etc)
111	**Silicon Sensors**
116	**Pad-structured readout units**
121	**Front-end modules for calorimeter segments**
125	**Strip-structured readout units**
129	StriPixels: Brick-End Modules (BEM's)
130	StriPixels: Front End Modules [FEM]
131	StriPixels: LV and HV Power
132	**Mechanical Structure**
142	**Assembly of bricks**
145	Digital signal processing [channels]
146	System test
147	**DAQ**
152	**Auxiliary Systems + Integration**
156	**Installation**
157	Installation (North)
158	Ready for PHYSICS (North)



Critical Path Item: Silicon Production must begin in early 2008

We are working with multiple vendors to produce the Si detectors: Performance is confirmed for ELMA(Russia), and evaluations are ongoing with prototypes from ON Semiconductor(Czech Republic) and SENS(Korea)

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Cost Estimate – major categories

Major Items	average contingency	Total cost
Si Sensors Pads:	32%	$1,237K
StriPixels:	43%	$169K
Pad structure readout units :	35%	$222K
Strip structure readout units :	37%	$197K
FEM Analog electronics: Pads	64%	$231K
FEM Digital electronics: Pads	27%	$822K
Mechanical structure (including W)	31%	$523K
Assembly of Bricks	20%	$55K
DAQ, Ancillary systems, Installation	30%	$235K
Stock components	88%	$220K
Total	35%	$3.94M

- Total cost includes spares, contingency and overhead