



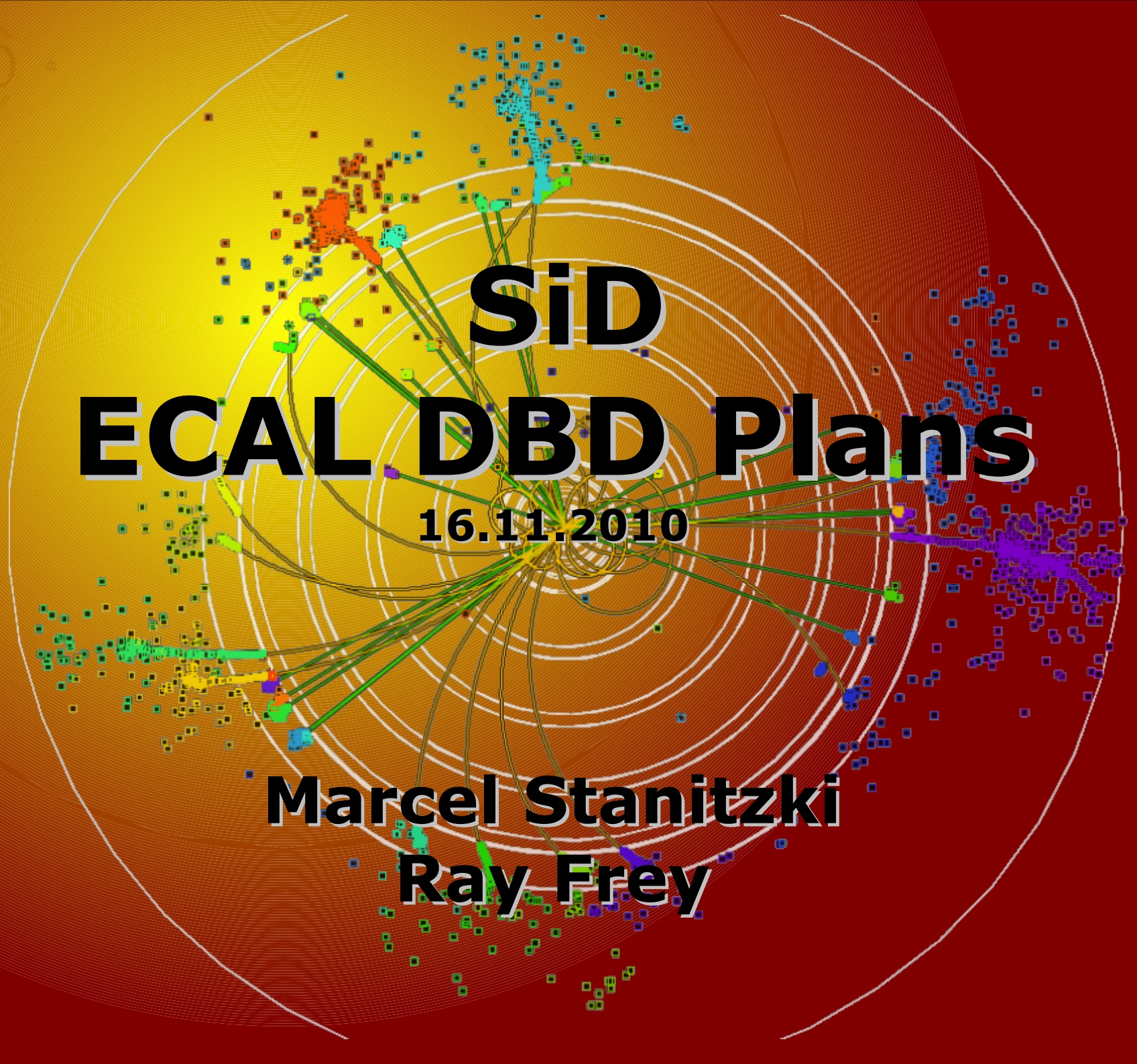
# **SID**

# **ECAL DBD Plans**

**16.11.2010**

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# DBD plans

- Didn't have time yet to fix up a sensible timeline yet
- Will probably have a better idea before XMAS
- All dates are modulo funding decisions as well



# Moving from the LoI

- ECAL: Si+W
  - Either KPIX (baseline) or MAPS
- We know a SiW ECAL works
  - No need to establish the principle
- We need to prove our implementations
  - KPIX, mechanics, MAPS, cables
- Building large stacks is expensive
  - This is a major obstacle in tight funding times



# Proofing the Hardware

- SiW + KPix is moving along
  - 1024 channel KPix is coming in 2 month
  - Bump bonding still an open question
  - Then building layers & stacks
  - Test beam data feasible by 2012 (end)
- SiW + MAPS is limping
  - Building a large chip for building layers has been stalled
  - Will have some data with a 1x1 cm chip only
  - Not clear, when funding will pick up again
- More details for the DBD, but no massive changes
- Will be ready when it's done ...





# Mechanics

- Already in good shape during the LoI
- Work will continue on this
- Only real open item is the endcap layout
- Remember, the DBD is not a TDR
- Mechanics in good shape for the DBD



# Alignment & Calibration

- This is an open question ...
  - We got away with rather general statements for the LoI
- Having KPix 1024 results will add more information
  - TPAC calibration data is available as well
- The will require a modest amount of work
- Should be ready for the DBD



- Another open area
- Need to redo resolutions, etc
- Improve Photon ID (worse than ILD)
- Add
  - Photon/Electron ID plots
  - $\pi^0$  ID
  - PFA results
- Simulate a MAPS ECAL in SiD
- This will require some work ...
  - Great opportunity for people to get involved
  - Effort will limit, what we can add for the DBD



# Optimization

- Haven't said much about this in the LoI
- Would be interesting to look at ECAL performance again
  - Layers, Radius, pixel size
  - With a working PFA
- Should we add that for the DBD
  - Make the case again why we made certain choices
- Effort
  - Again, great place for people to get involved
  - The manpower will limit the material for the DBD



- The ECAL LoI section is a good start
  - Not going to change thing fundamentally
- Add Hardware & Testbeam results when available
- Mechanics
  - will be updated
- Calibration & Alignment
  - Updates and Enhancements
- Software/Simulation/Reconstruction
  - Add new Material if possible
- Detailed Timeline discussion till XMAS