Discussion Full Detector Systems

20th RD50 Workshop, Bari, May 2011

Things to be done/investigated?

- Samples from RD50 Micron run
 - Mixed irradiations (do we need an organized campain?)
 - p after n, n after p
 - Edge-TCT, alibava
 - MCz-n neutron irradiation (is the "magic" performance still there)
 - to be done with many fluence points with p-n, n-n sensors
 - Edge-TCT measurements, Alibava
 - Electric field ("active-bulk") at very high fluences
 - Edge-TCT (modelling simulations)
 - Device simulations
 - RT annealing of different samples
 - One/Two (neutrons?, protons?) sample of each flavor to "standardized" fluence and left for long time.
 - Multiplication profile in the strips
- Noise studies
 - Noise during multiplication (compare to theory)
 - Do Alibava and SCT128A behave in the same way?
- Work on proposed projects addressing specific topics:
 - Low resistivity implants for punch through protection
 - Edge isolation with oxide (n type), Al (p-type) to achieve thin edge detectors
- Test beam (list of devices and aims)
 - Alibava setup (GL boards)
- 6" CM wafers

Multiplication studies underway

- Neutron irradiated sensors irradiated and distributed
- Spaghetti samples program is running
- CNM trench