



ILC Detector R&D

Vertex detector review 22-27 October 2007

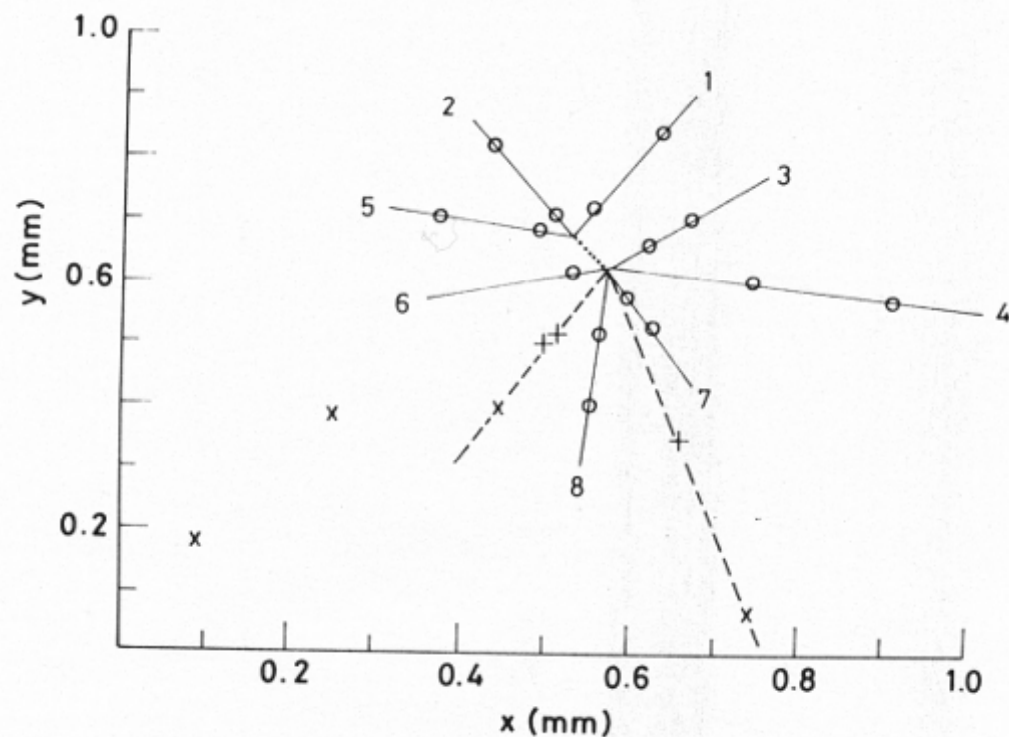
Some introductory remarks

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RAL

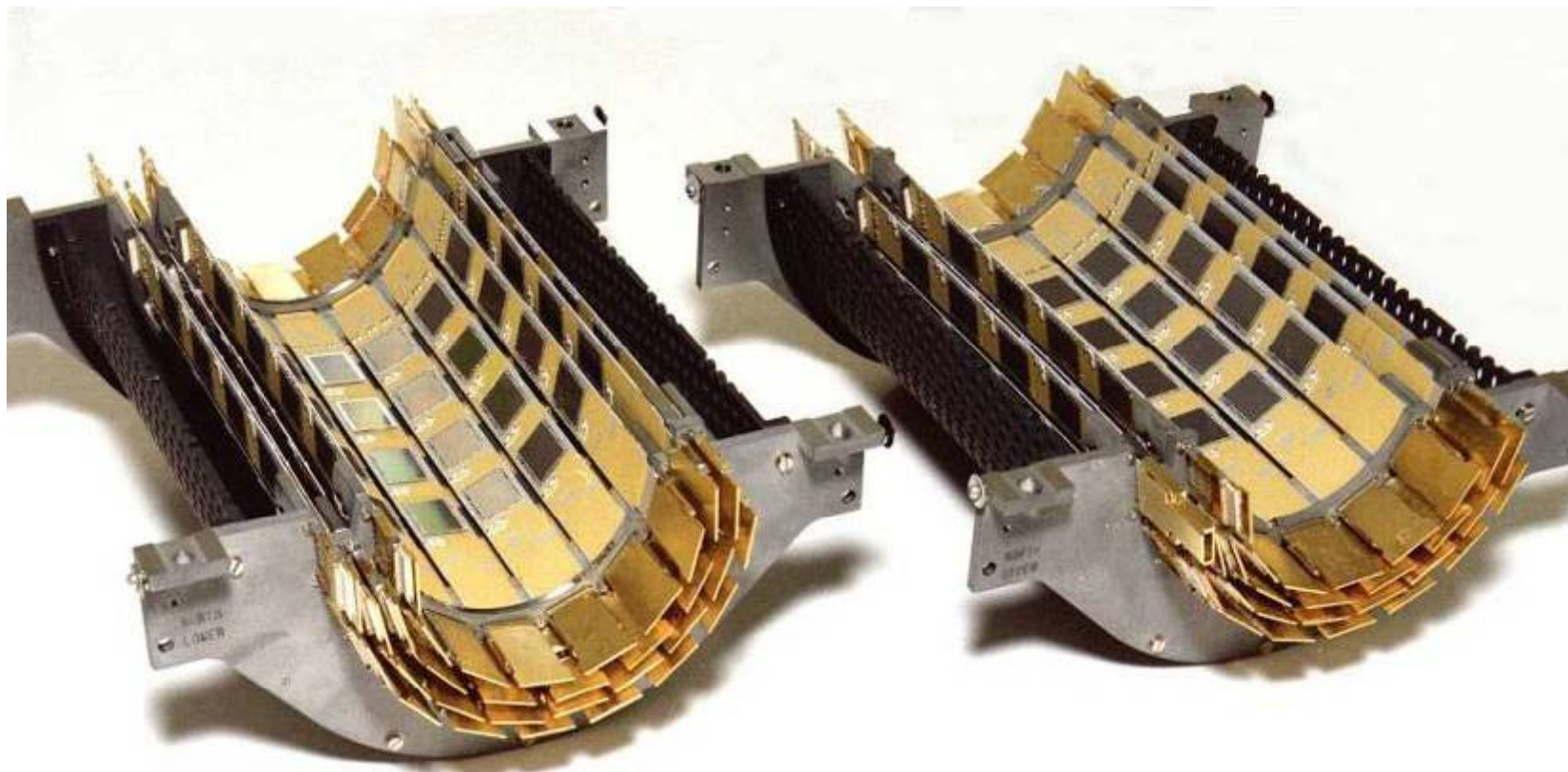


Purpose of these reviews

- **Primarily: to help the R&D collaborations achieve their goals**
 - technical suggestions
 - provide support for enhanced R&D
- **First two reviews confirmed that enhanced R&D is really important – not simply reflecting the ‘unrestrained desires’ of the R&D collaborations**
- **Groups are justifiably concerned that they will be unable to deliver detector systems that satisfy the physics goals**
- **However, there can be complications to this ‘supporting role’, for example if the committee concludes that the goals may be unachievable. This unfortunately happened in our very first review (of ILC tracking systems) last February**
- **Consequences:**
 - **The groups concerned are working hard to prove us wrong – excellent!**
 - **A new approach has popped up out of all the smoke, namely an all-pixel tracking system. Just in the very early stages of assessment, but 30 Gpixels with very low power (gas cooled) is by no means outrageous in 2020**



NA32, 1984: 2 pixel detectors at $z = 1$ and 2 cm were *far superior* (for track reconstruction) to 6 microstrip detectors at $z = 6$ to 12 cm



SLD Advisory Gp Mtg 1989: ‘ 480 CCDs is ridiculous’

September 1991: VXD2 was completed

- Vertex detector review dinner, Wednesday evening, Chez Leon
- All speakers and committee members, except those who told me otherwise
- Devis Contarato, Marcel Demarteau, Corrado Gatto, Tim Greenshaw, (Young-Kee Kim), (Pier Oddone), Bob Tschirart, Hans Wenzel, (Sakue Yamada)
- Any updates or corrections?