

SDD Detector qualification sequence

- *Detectors coming from mass production are shipped to Trieste*



Preliminary measurements: detectors are tested in Trieste



*On base of Preliminary measurements detectors pass to
Complete measurements*

in:

Istituto Nazionale di Fisica Nucleare – Trieste –Italy



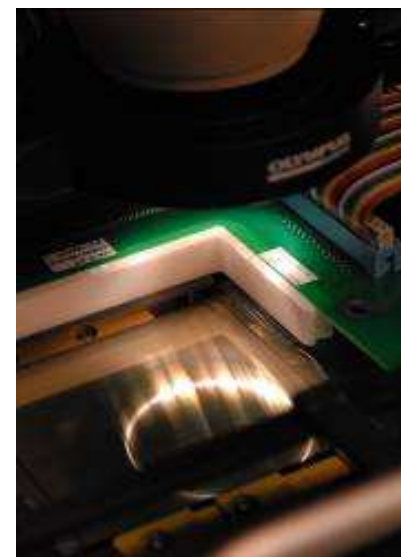
*After qualification procedure is done the accepted detectors are
assembled with HV bias microcables in two sites:*

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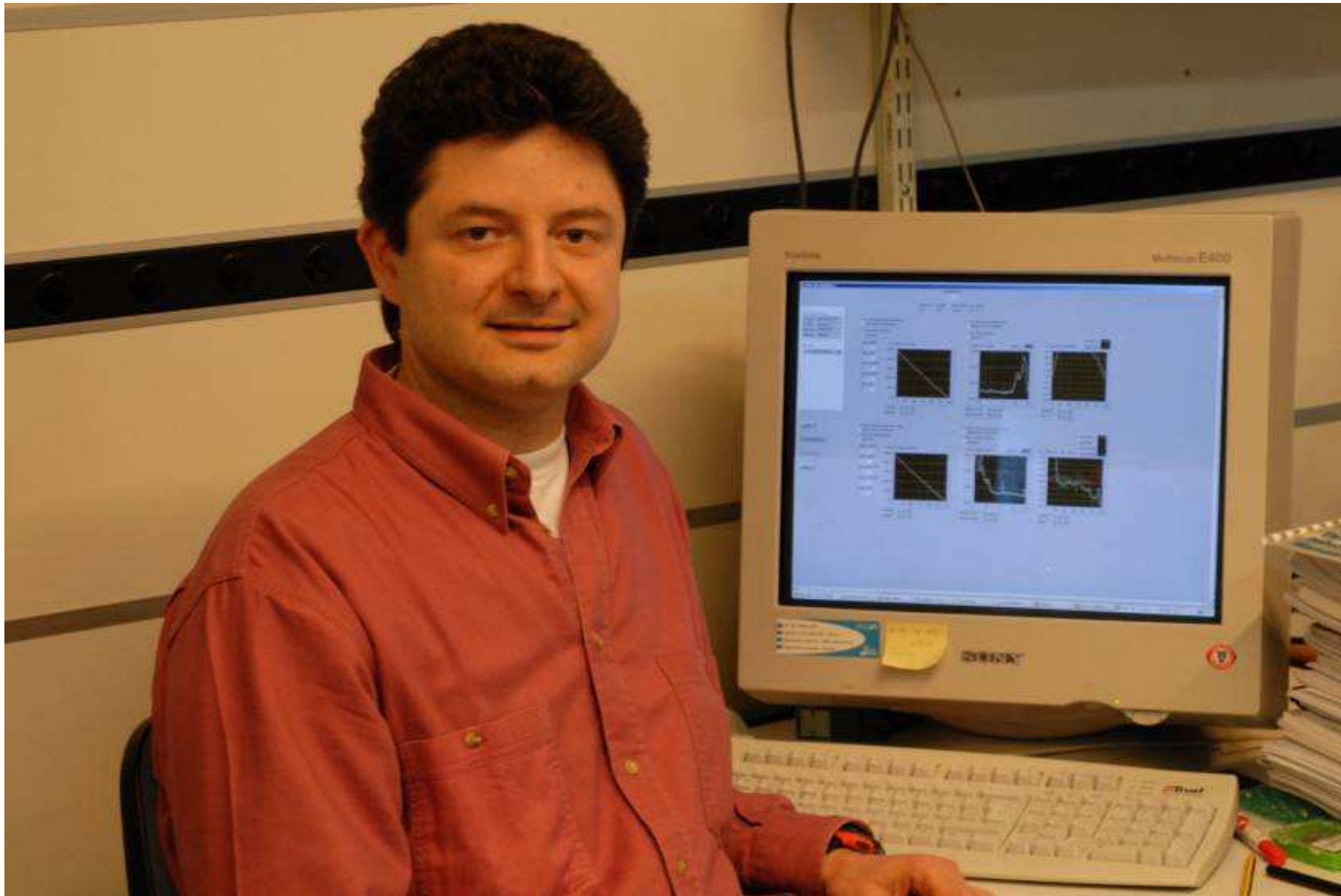
and

Ohio State University – Columbus – USA (grade B SDDs)

Detector qualification (**Ludmila Mitsyna**)



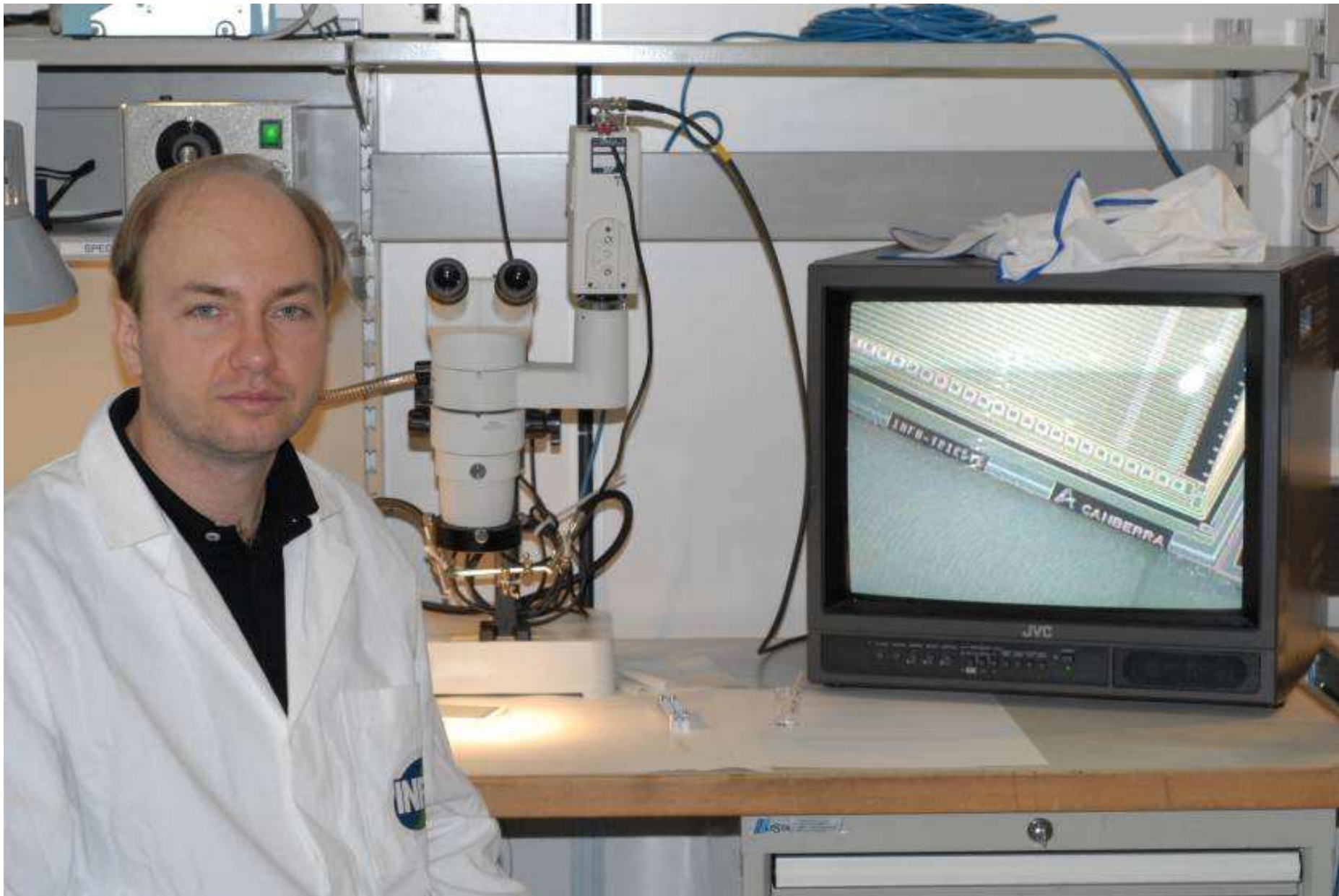
Production database (**Gianluigi Zampa**)



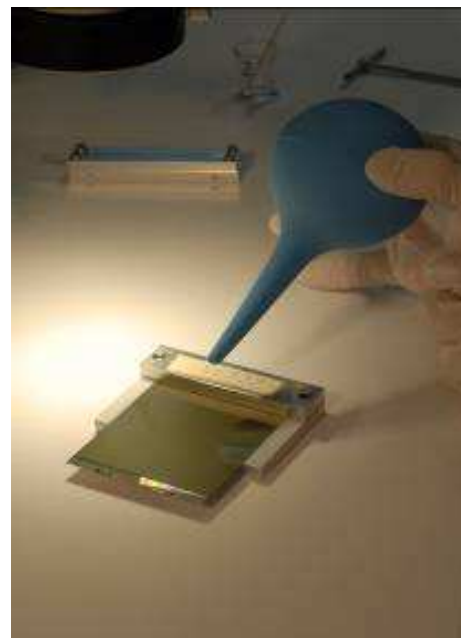
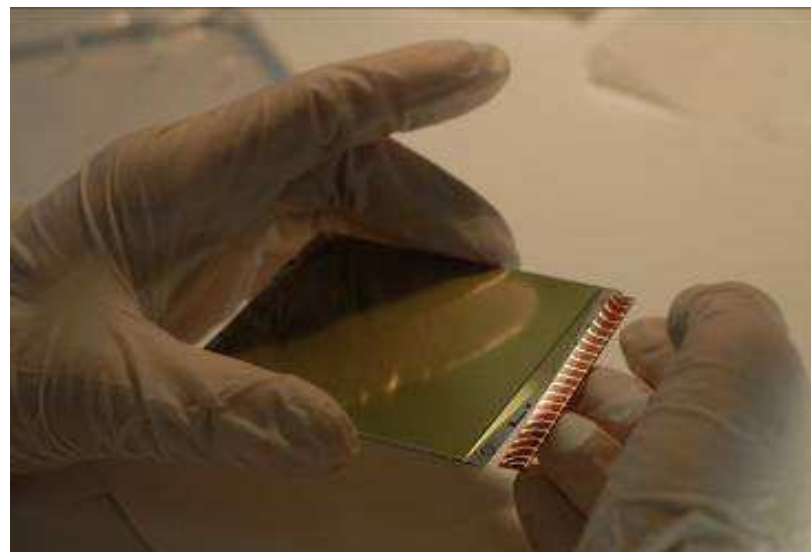
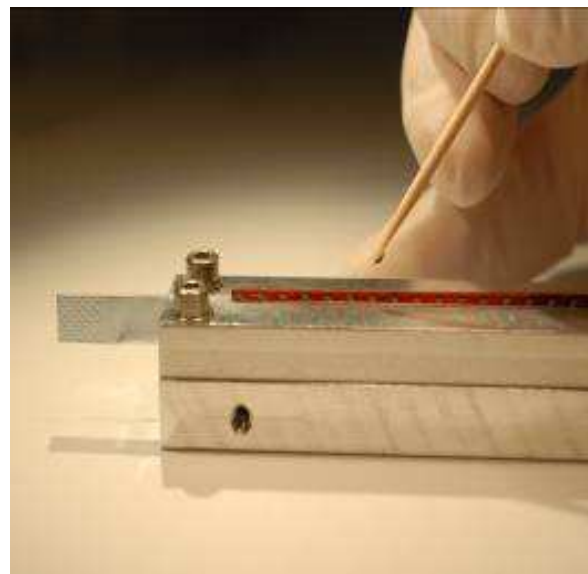
Route for HV microcables assembling onto SDD

- **Wrap-around cable gluing (30 min), cure 4 hours at 60 C**
- **Wrap-around cable bonding on p-side and n-side (20 min)**
- **Gluing on p-side of Transition cable and 4 glasses (1 hour), cure 4 hours at 60 C**
- **Transition cable bonding (20 min)**
- **Mounting the assembly onto the frame for shipment to Torino (10 min)**
- **Glue passivation of bonds on Transition and wrap-around cables (30 min),
cure 4 hours at 60 C**
- **Shipment of ready assemblies from Trieste to Torino**
- **Total: 3 hours of manual operations and 12 hours heat cure**
- **In order to have 4 assemblies per day two operators proceed with different steps in parallel**

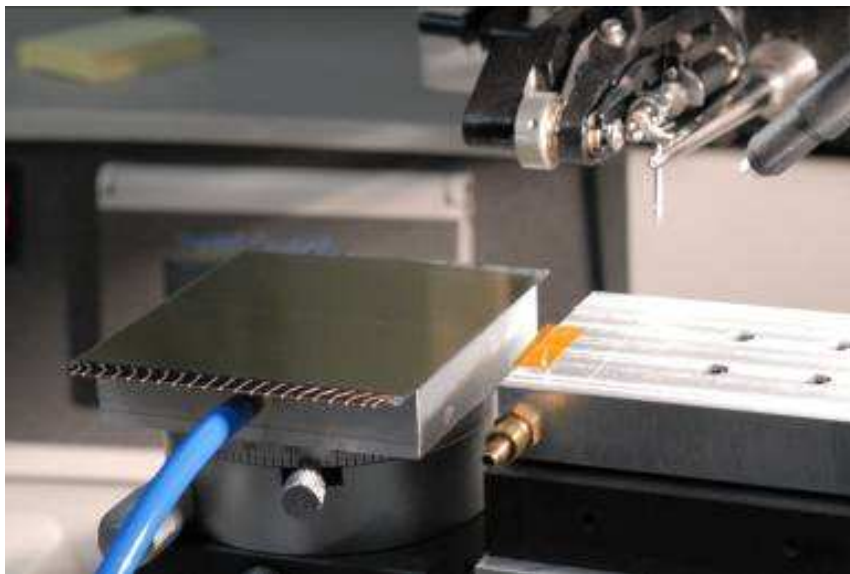
Wrap-around cable gluing (Stefano Ciano)



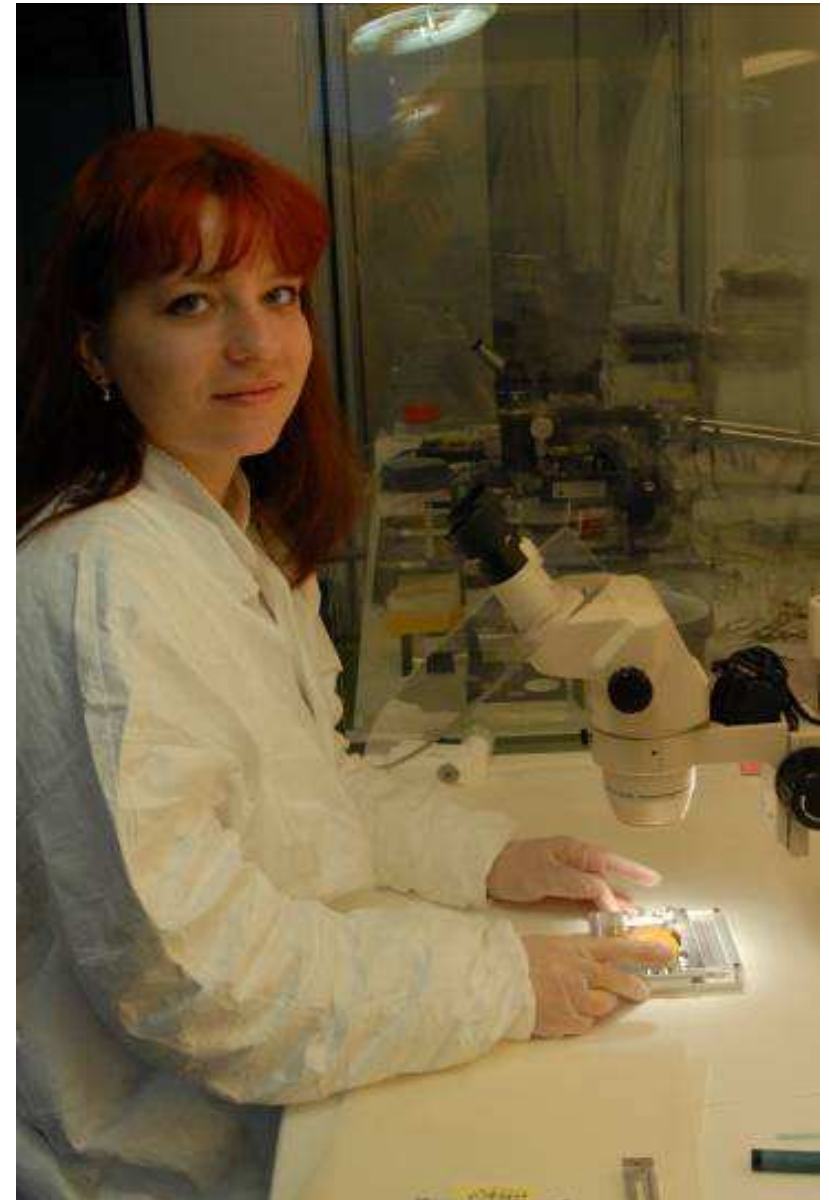
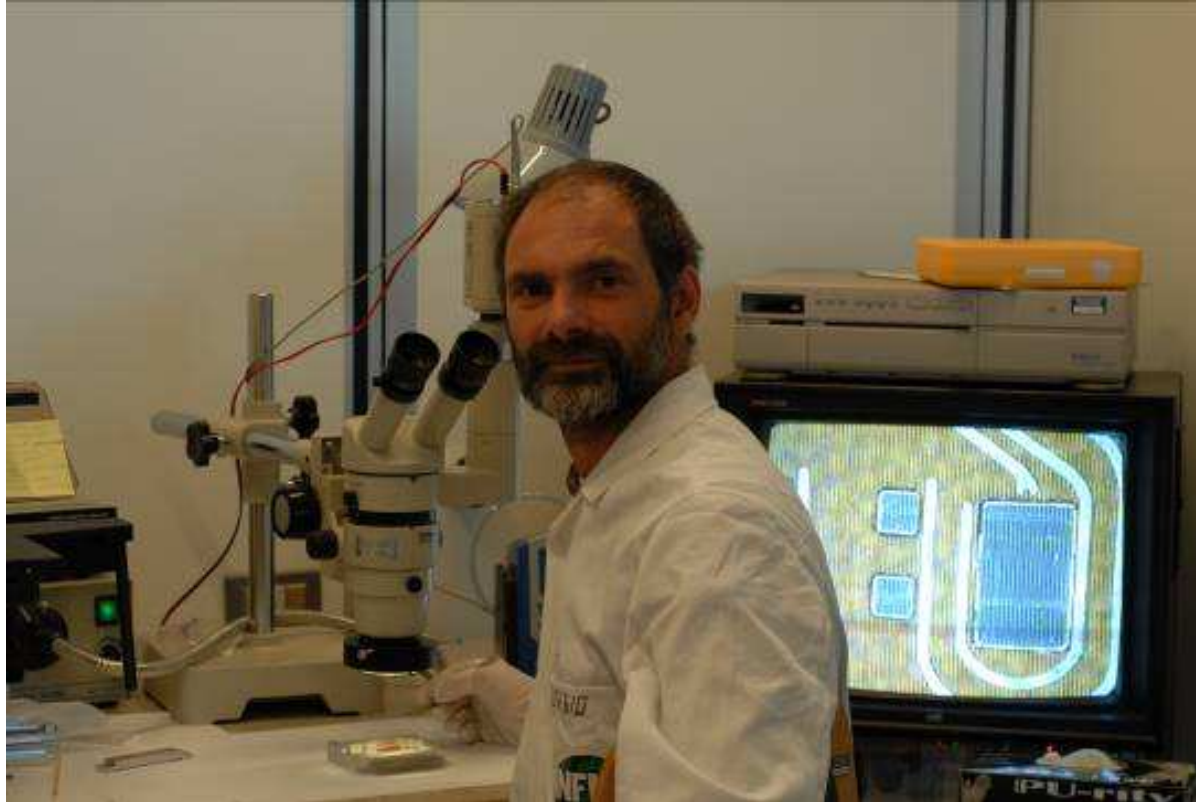
Wrap-around cable gluing



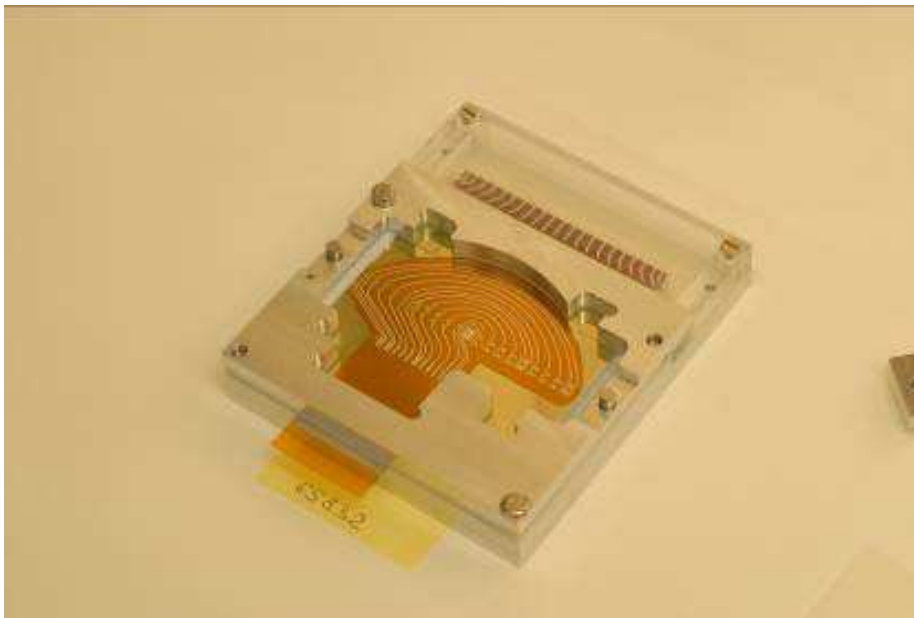
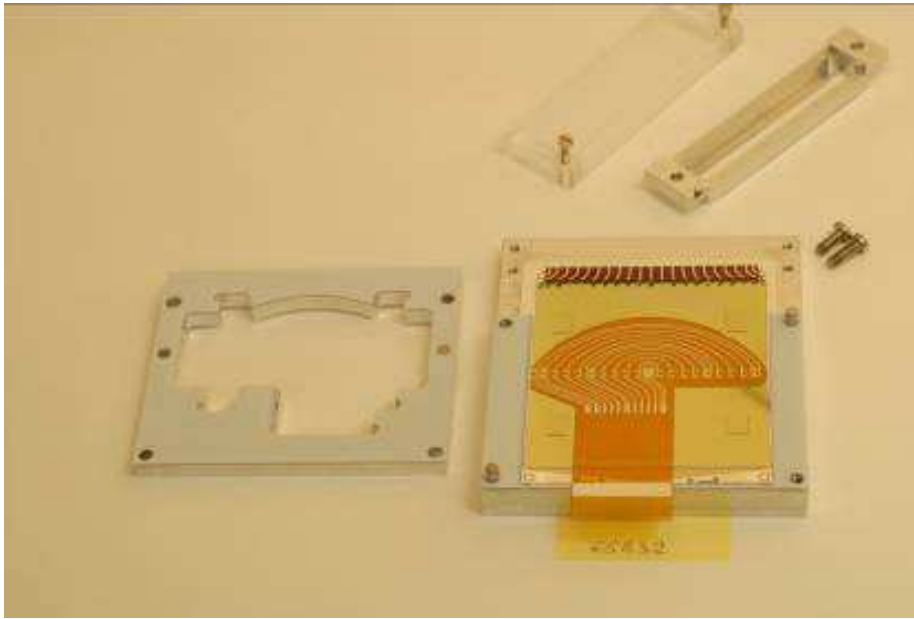
Wrap-around cable bonding on n- and p-side



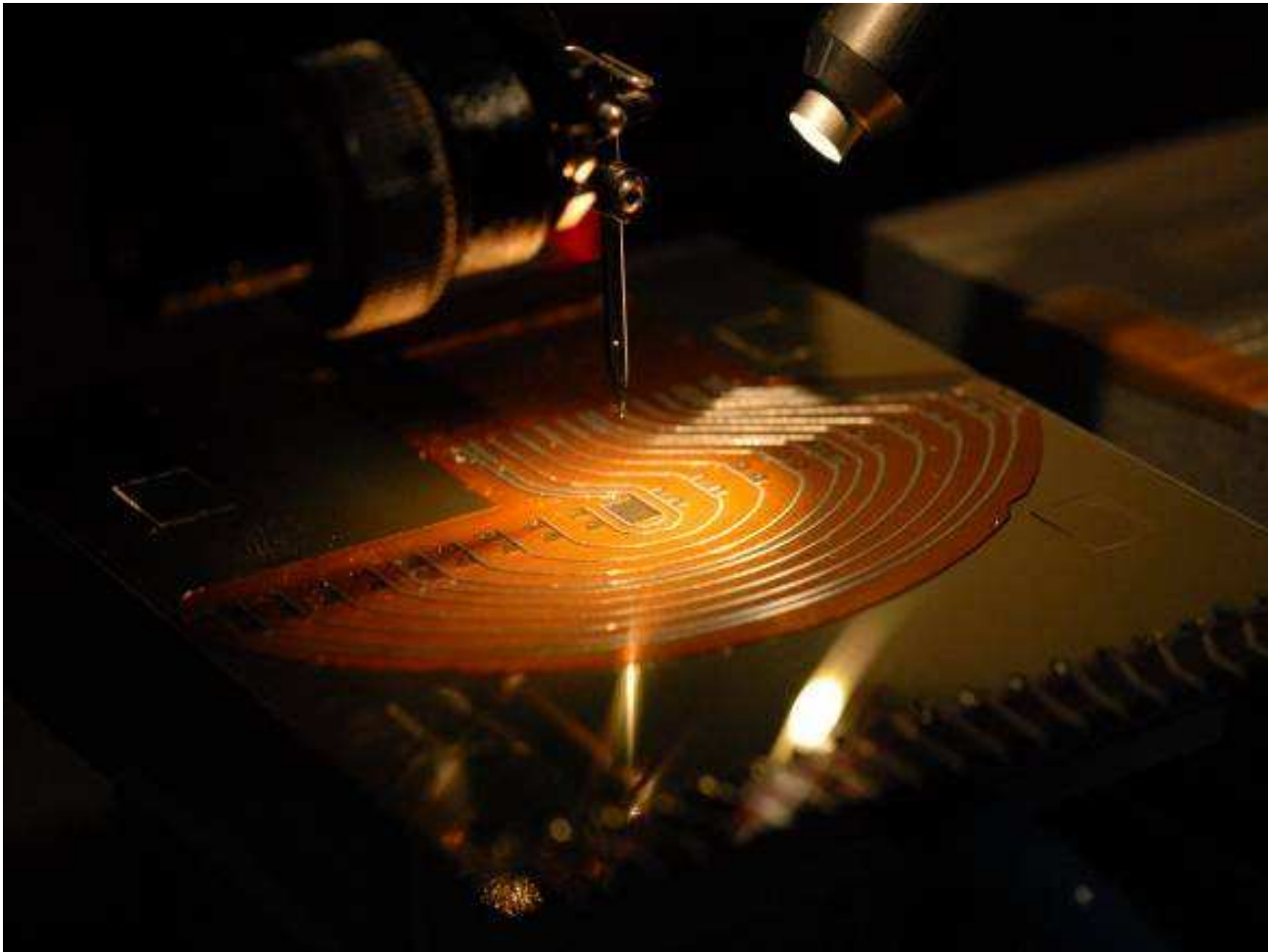
Transition cable gluing on p-side (Giorgio Venier and Anna Dyatlovich)



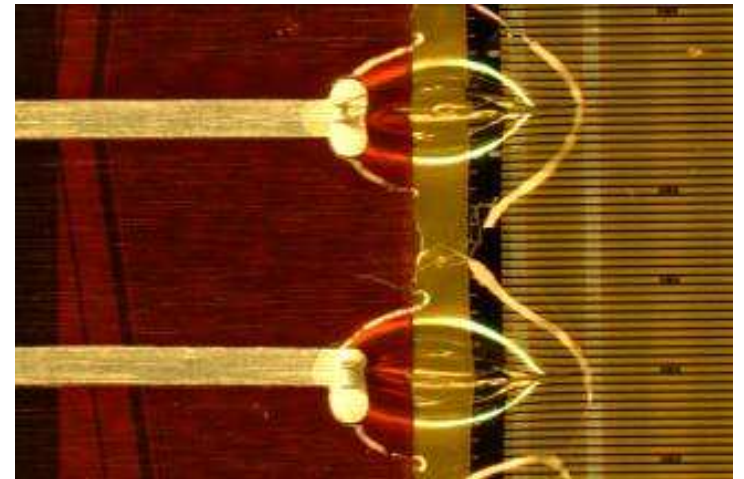
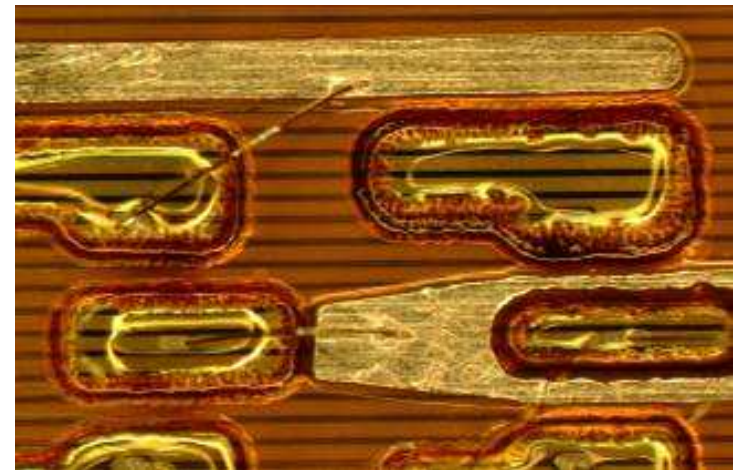
Transition cable gluing on p-side



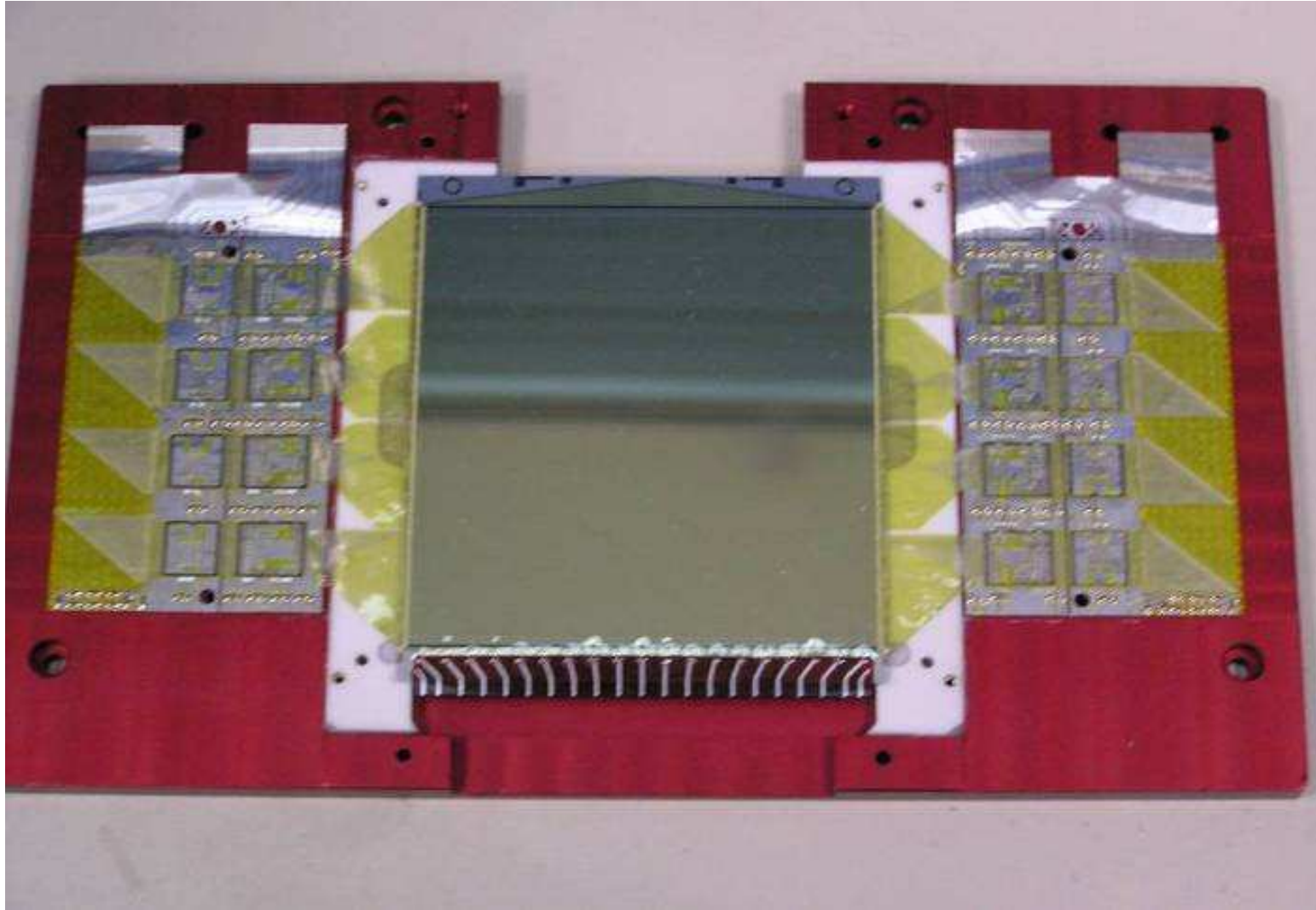
Transition cable bonding



Bonds passivation

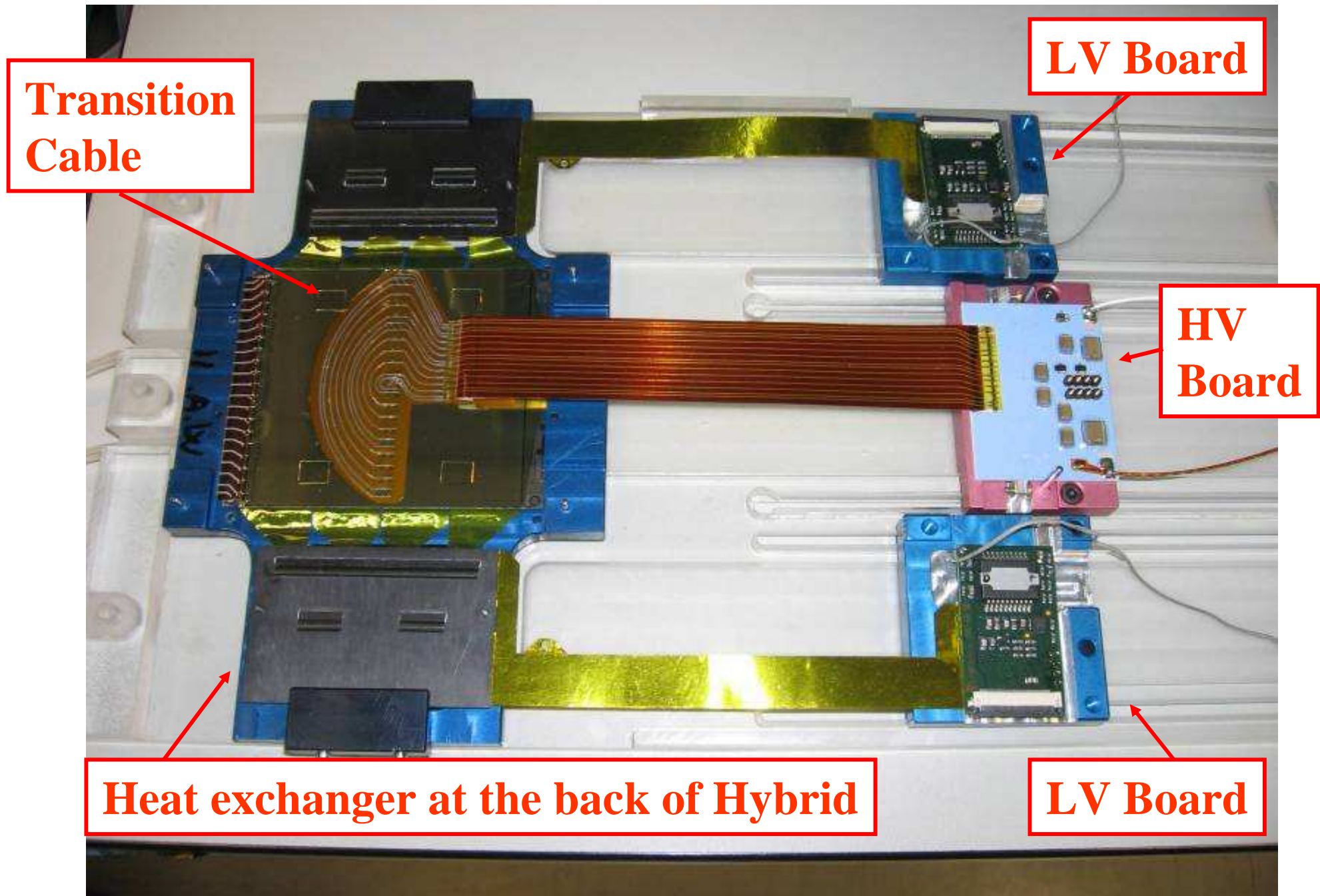


Finished SDD Module

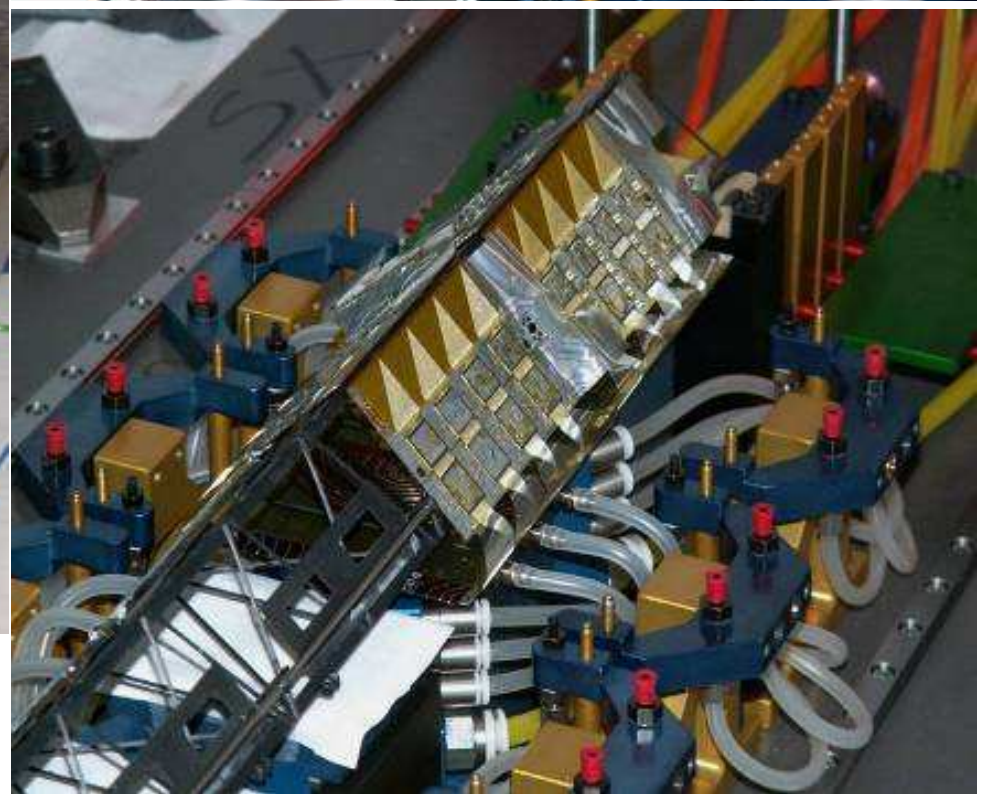
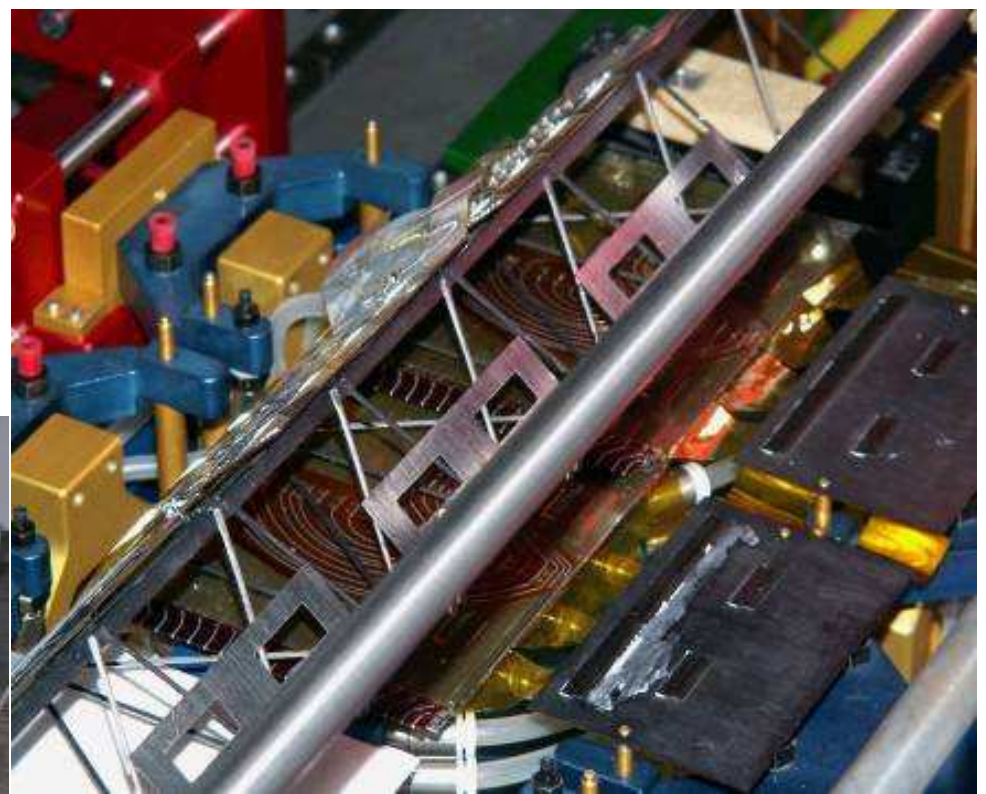
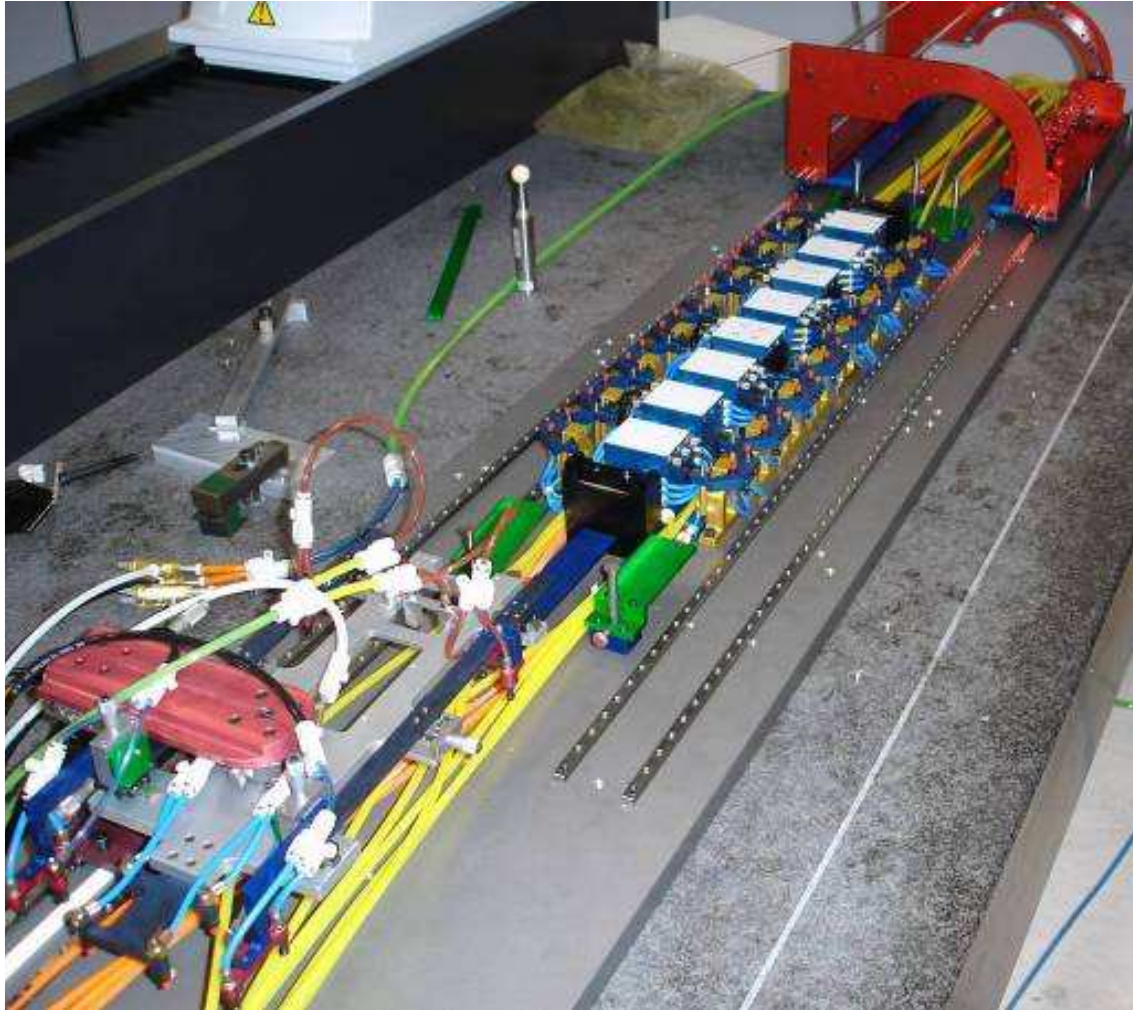


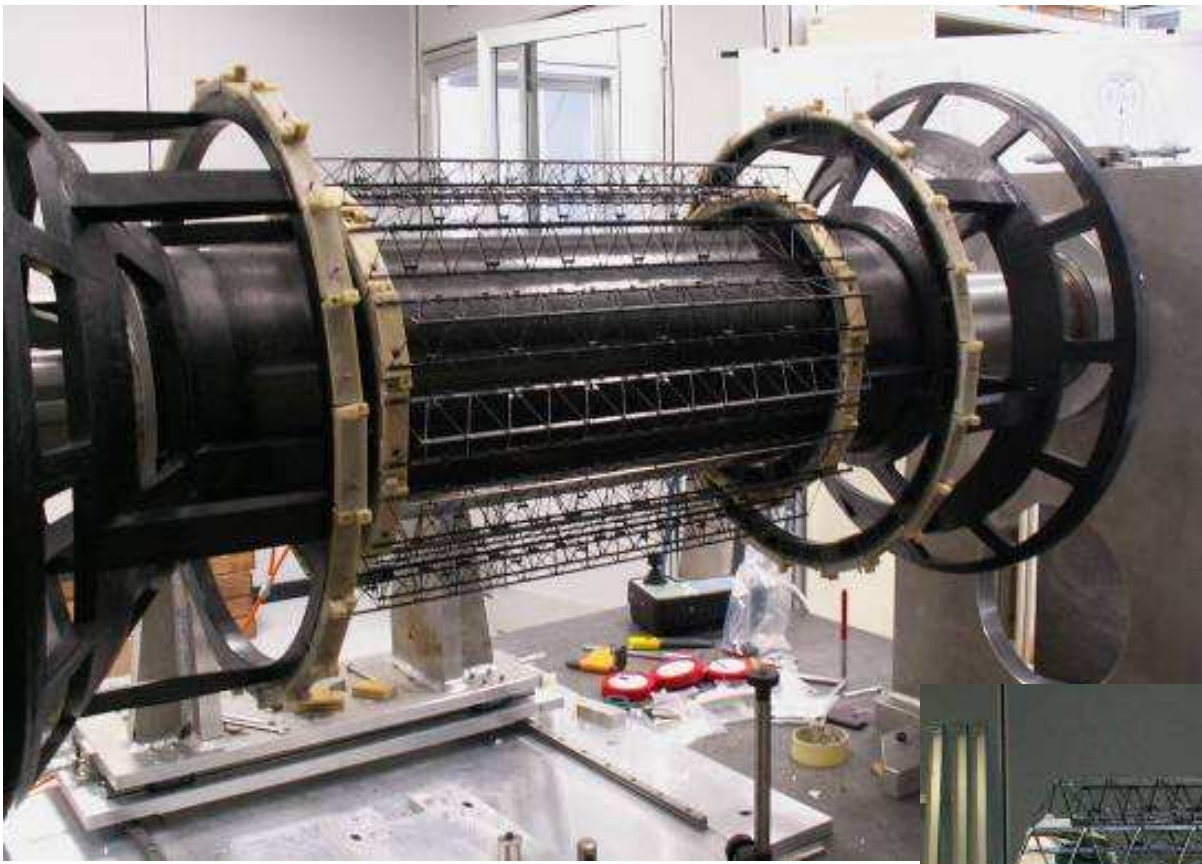
Connect to Long Cables

SDD module with ladder cables and end ladder boards



Mounting sequence on the ladder





Assembly of the ladder positioning elements (finished for SDD, ongoing for SSD)

