

Flat button BPMs

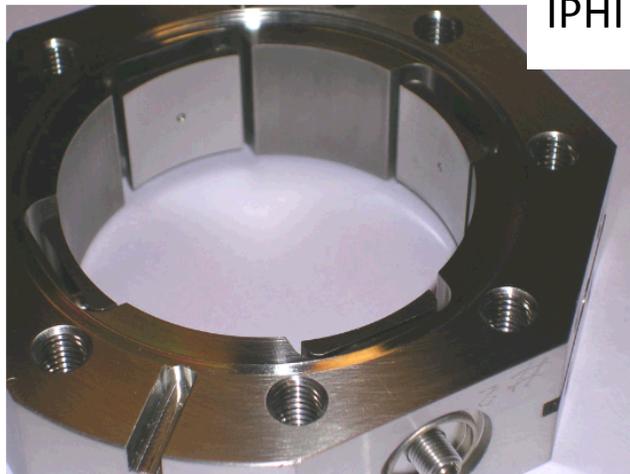
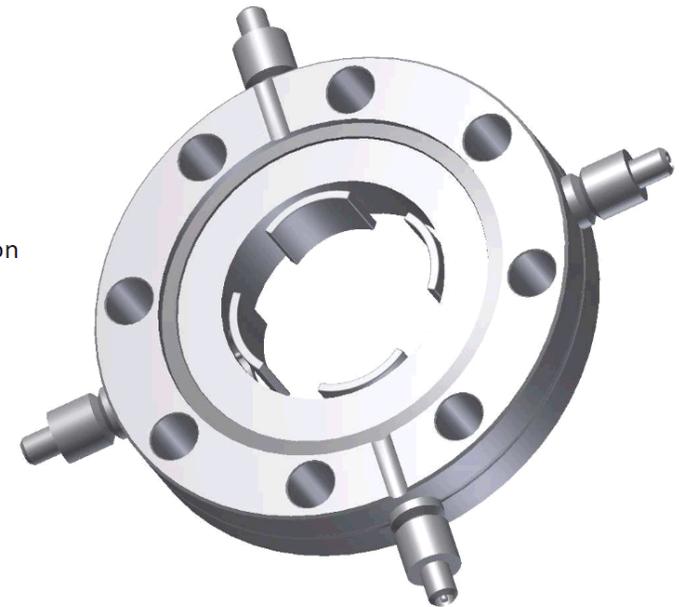


FIG. 9. (Color) An IPHI BPM (core, feedthrough, and assemblies) has been built by the French company PMB. The space between electrode and core is 2 mm with a tolerance of ± 0.05 mm. The four standard Metaceram 50Ω feedthroughs are terminated by SMA connectors. During the brazing process the four electrodes have been positioned by using a template to align the axial symmetry. The beam position can be measured with an absolute accuracy of $180 \mu\text{m}$.

Compact BPM

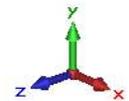
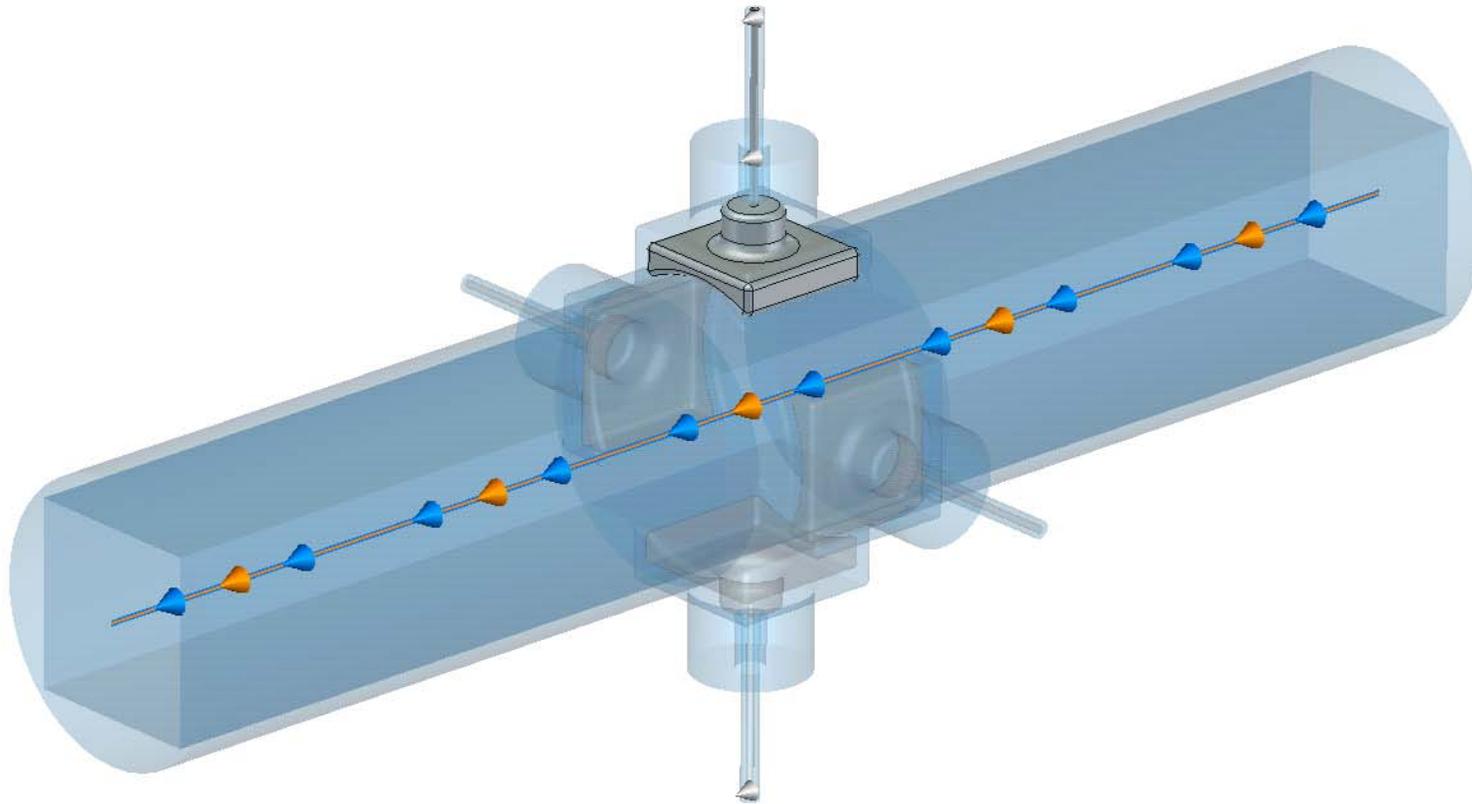
- Small Compact BPM
- A device to test different electrodes is under construction
- Must be:
 - Compact
 - Cleanable
 - Couple to the beam for a useful SNR

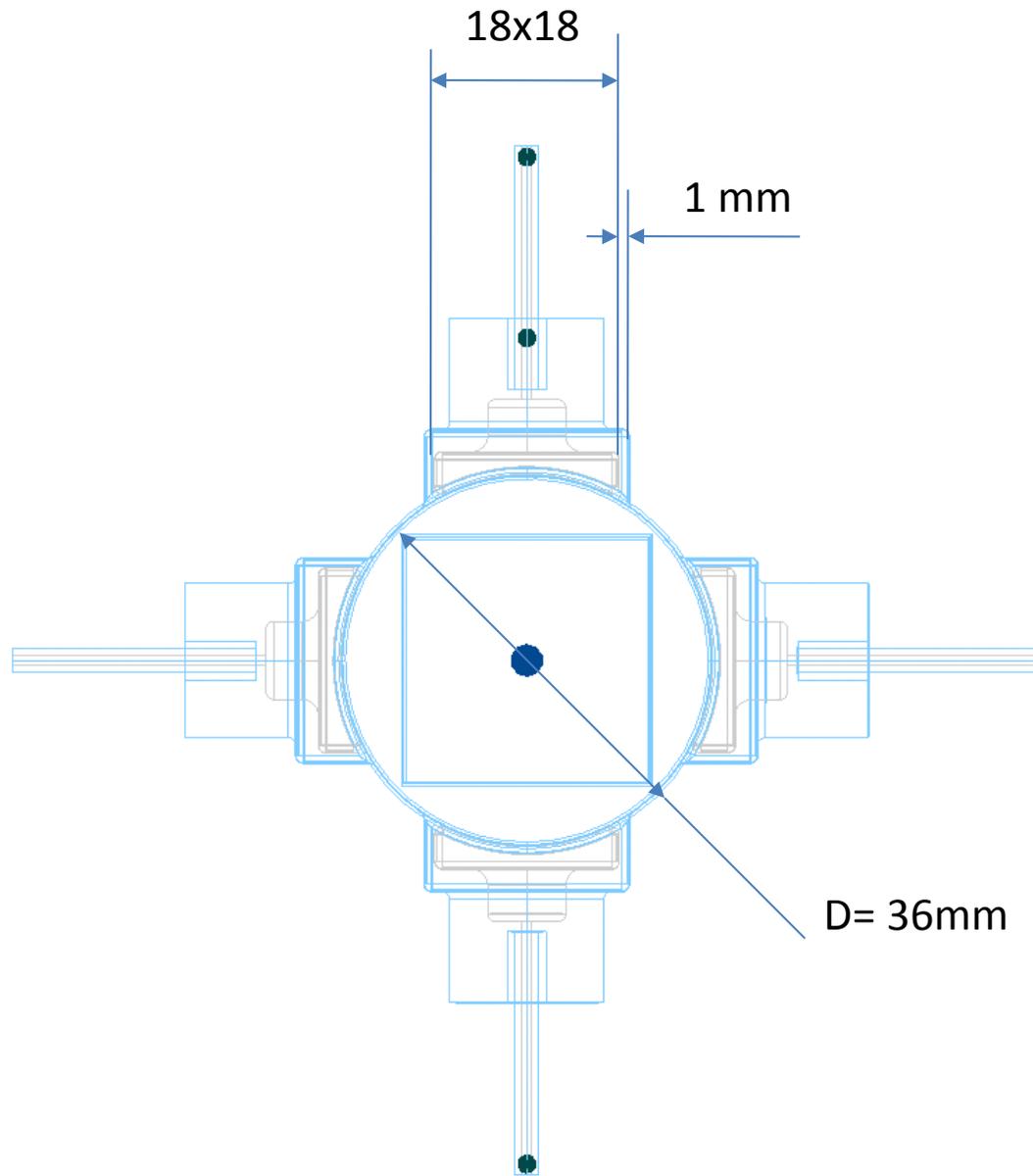


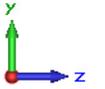
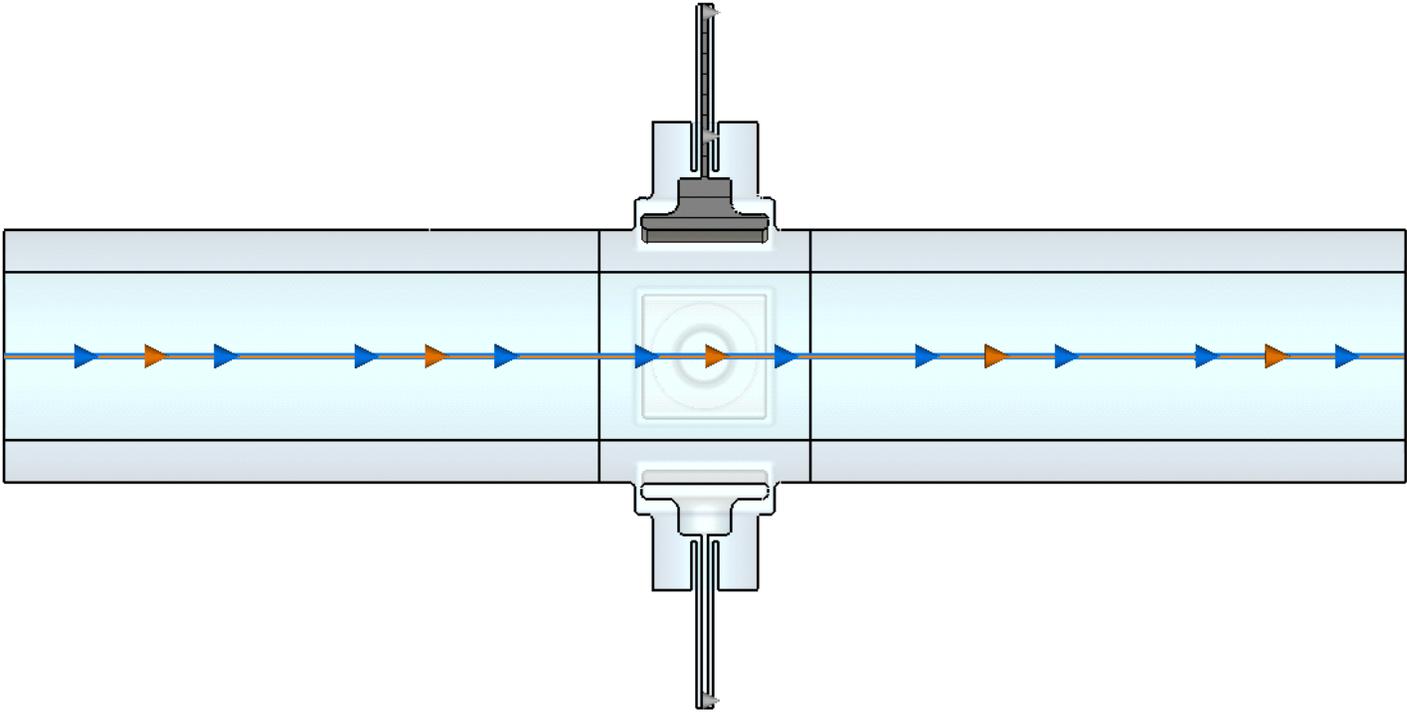
Pros: simple mech. design, more than 2 times shorter than button BPM, welded feedthroughs, easy cleaning

Cons: not yet tested, possible errors due to e-beam welding and assembly, the absolute accuracy could be worse than a button BPM, custom feedthrough.

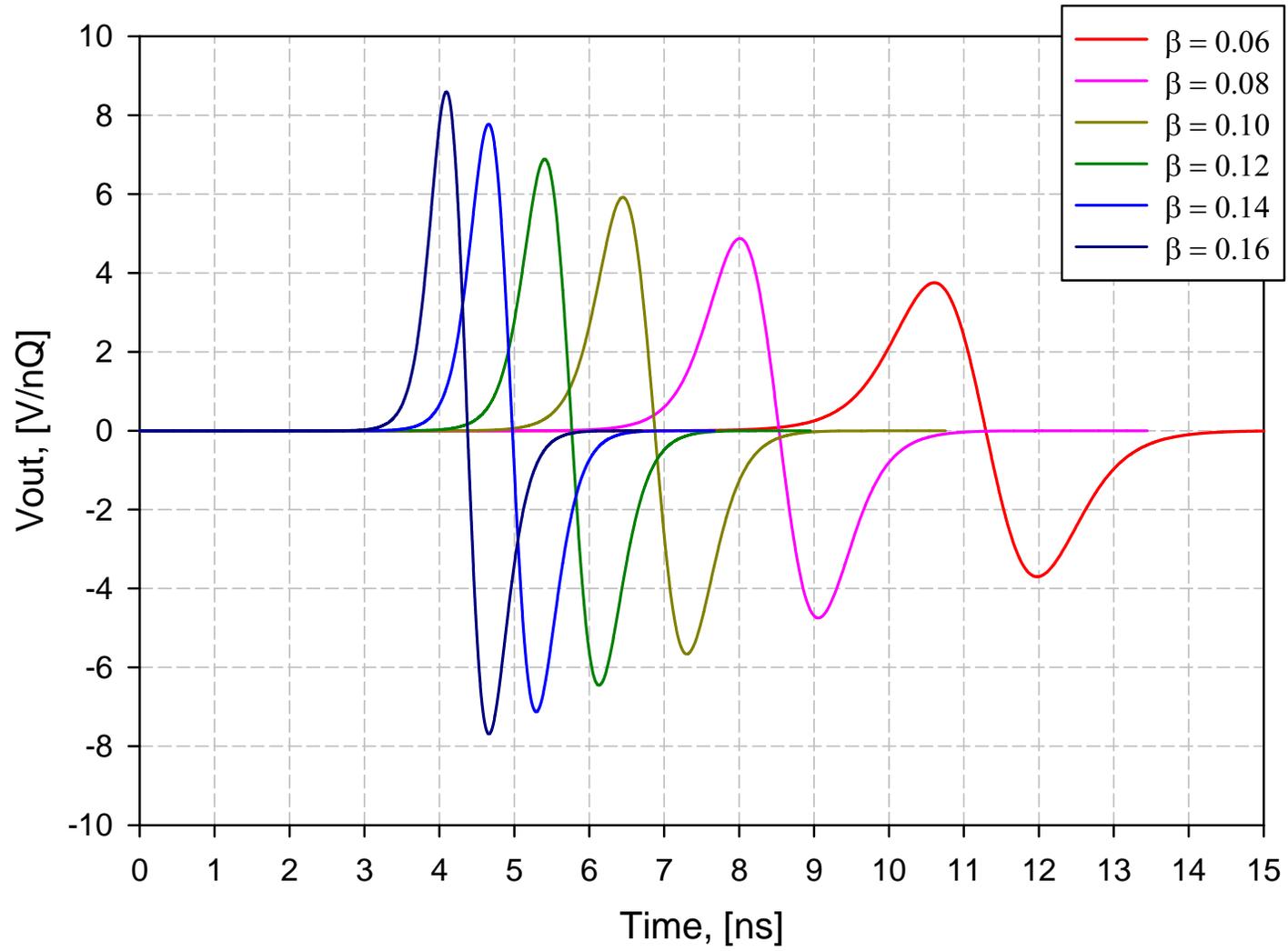
BPM Simulation with CST Particle Studio







BPM output signal for 4 mm bunch length



BPM output signal for 4 mm bunch length

