

From: RAIMONDI Pantaleo - National Frascati Laboratory Accelerator Division Leader
To: Department Of Energy

The Large Angle Beamstrahlung Monitor, developed at CESR, has unique properties that make it desirable for all future electron-positron colliders. Given a beam-beam mismatch causing the specific luminosity to decrease, it will identify the beam at fault, it will identify the type of correction needed, and how much correction is needed. It will also work at both low energy and high energy colliders, providing a genuine, data-driven R&D path.

It should also be stressed that this is the only device (known so far) capable of measuring the individual beams spot sizes and their tilts at the collision point.

We are interested in this device both for DAPHNE and for SuperB. We have already explored possible locations inside the DAPHNE Beam Pipe for the primary mirrors with Dr Bonvicini, and we will advance our studies in the upcoming months.

At SuperB in particular, the beam-beam interaction is the number one primary machine concern and we intend to study it to the highest possible precision. We strongly support this line of research, that we deem will represent a quantum leap in the diagnostic for the leptons colliders.

Yours sincerely

Pantaleo Raimondi