

**Beam Diagnostics Revisited, H. KOZIOL, CERN -**

The performance of accelerators and storage rings depends critically on the completeness and quality of their beam diagnostic systems. It is therefore essential to equip them from inception with all the instruments providing the information on the properties and behaviour of the beams, needed during running-in, in operation and for development of performance towards the design goal and often well beyond. Most of the instruments have proven their worth since decades, but their power has been increased through the modern means of data acquisition and treatment. A few new instruments have made their appearance in recent years, some still under development and scrutiny for their operational value and precision. The multi-accelerator chains at today's and tomorrow's big colliders have tight tolerances on beam loss and emittance blow-up. For beam diagnostics this means a great challenge for precision and consistency of measurements all along the chain.