



AT9900109

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Tue 9.00
IT**High Resolution Electro-magnetic Calorimetry with
Noble Liquids**D. Schinzel*CERN, Geneva, Switzerland*

Current sensitive, fast electromagnetic calorimeters with excellent energy and time resolution using noble liquids have been developed either for collider experiments or fixed target experiments. The fine grain tower structure of these calorimeters allow high rates and yield very good spatial resolution. Performance and results of the ATLAS accordion calorimeter (sampling calorimeter), of the NA48 liquid Krypton calorimeter (quasi-homogeneous calorimeter) and of ICARUS (homogeneous detector) are presented. Starting from first principles, quantities which may significantly influence the energy resolution in addition to shower fluctuations and longitudinal leakage are discussed. Constructional and operational aspects, including cryogenics and purification are presented.