

**Feasibility Study for a High-Beta Insertion Optics in the LHC for the TOTEM Experiment,**  
A. FAUS-GOLFE, IFIC - The TOTEM experiment is intended to measure the total cross section, elastic scattering and diffraction dissociation at the LHC energies. For those measurements, we have to detect particles emitted in the very forward region. The experimental method, techniques and optics layout which are involved are very special and quite different from those used in the large general purpose detectors. From the optics point of view a high-beta insertion (900 m) is needed. In this paper we present a feasibility study for an experiment to be installed in IR1, IR2, IR5 or IR8 of the LHC experimental insertions. Our first objective is to make it with no special infrastructure and minimum cost.