

**Superconducting Superstructure for the TESLA Collider**, M. FERRARIO, INFN; J. SEKUTOWICZ, C. TANG, DESY - In this note we discuss new layout of a cavity chain (superstructure) allowing significant reduction of the cost of the RF system of both main linacs of the TESLA linear collider. The proposed scheme increases fill factor and thus makes an effective gradient of an accelerator higher. We present computations we have performed up to now and preliminary measurements on the copper model, keeping in mind that experiment with the beam will be necessary to proof the proposed solution.