Abstract Submitted for the DPP16 Meeting of The American Physical Society

Long slide-away discharges in the COMPASS tokamak¹ ON-DREJ FICKER, Institute of Plasma Physics of the CAS, Za Slovankou 1782/3, 182 00 Prague 8; FNSPE, CTU, Prague, Czech Republic, JAN MLYNAR, MI-LOS VLAINIC, VLADIMIR WEINZETTL, JAKUB URBAN, JORDAN CAVA-LIER, JAROSLAV HAVLICEK, RADOMIR PANEK, MARTIN HRON, IPP CAS, Prague, CZ, JAROSLAV CEROVSKY, FNSPE, CTU, Prague, CZ, PETR VON-DRACEK, RICHARD PAPROK, IPP CAS, Prague, CZ; FMP, Charles University, Prague, CZ, JOAN DECKER, EPFL, SPC, CH-1015 Lausanne, Switzerland, YVES PEYSSON, CEA, IRFM, F-13108 Saint-Paul-lez-Durance, France, ONDREJ BOGAR, IPP CAS, Prague, CZ, FMPI, Comenius University, Bratislava, Slovakia, ADAM STAHL, Dept. of Physics, Chalmers University of Technology, Gteborg, Sweden, COMPASS TEAM — In this contribution, long runaway electron (RE) dominated discharges achieved in the COMPASS tokamak are presented. The extensive length is possible due to a low consumption of available volt-seconds of the tokamak transformer in this type of discharge. Energetic electron losses in this regime seems to be modulated mainly by small oscillations of a radial position (controller setting) unlike in the RE discharges at higher electron density, where various MHD phenomena affect the evolution of the losses. The behaviour of the slide-away plasma is studied using magnetic coils, HXR detectors, ECE system and a pair of ³He proportional counters of neutrons. The plasma scenario is also modelled using Fokker-Planck codes.

¹EUROfusion WP MST1, MST2

Ondrej Ficker Institute of Plasma Physics of the CAS, Prague, Czech Republic

Date submitted: 15 Jul 2016

Electronic form version 1.4