

Abstract Submitted  
for the DPP12 Meeting of  
The American Physical Society

**The Spherical Tokamak MEDUSA for Costa Rica**<sup>1</sup> CELSO RIBEIRO, IVAN VARGAS, SAUL GUADAMUZ, JAIME MORA, JOSE ANSEJO, ESTEBAN ZAMORA, Costa Rica Institute of Technology, Cartago, Costa Rica, JULIO HERRERA, National Autonomous University of Mexico, Mexico City, Mexico, ESTEBAN CHAVES, National Institute for Nuclear Research, Salazar, Mexico, CARLOS ROMERO, Institute for Research in Electronics and Applied Physics at the University of Maryland, College Park, US — The former spherical tokamak (ST) MEDUSA (Madison EDUcation Small Aspect.ratio tokamak,  $R < 0.14\text{m}$ ,  $a < 0.10\text{m}$ ,  $B_T < 0.5\text{T}$ ,  $I_p < 40\text{kA}$ , 3ms pulse)[1] is in a process of donation to Costa Rica Institute of Technology. The main objective of MEDUSA is to train students in plasma physics /technical related issues which will help all tasks of the very low aspect ratio stellarator SCR-1 ( $A \equiv R/a \geq 3.6$ , under design[2]) and also the ongoing activities in low temperature plasmas. Courses in plasma physics at undergraduate and post-graduate joint programme levels are regularly conducted. The scientific programme is intend to clarify several issues in relevant physics for conventional and mainly STs, including transport, heating and current drive via Alfvén wave, and natural divertor STs with ergodic magnetic limiter[3,4]. [1] G.D.Garstka, PhD thesis, University of Wisconsin at Madison, 1997 [2] L.Barillas et al., Proc. 19<sup>th</sup> Int. Conf. Nucl. Eng., Japan, 2011 [3] C.Ribeiro et al., IEEJ Trans. Electrical and Electronic Eng., 2012(accepted) [4] C.Ribeiro et al., Proc. 39<sup>th</sup> EPS Conf. Contr. Fusion and Plasma Phys., Sweden, 2012

<sup>1</sup>We are indebted to Prof. R. Fonck for donating MEDUSA and IAEA for the logistic support via the MEDUSA Coordinated Research Project

Celso Ribeiro  
Costa Rica Institute of Technology, Cartago, Costa Rica

Date submitted: 30 Aug 2012

Electronic form version 1.4