

Abstract Submitted  
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**Analysis of Equilibrium Plasmas in Experimental Device by Virtual-Reality System** H. OHTANI, Y. SUZUKI, R. KANNO, S. ISHIGURO, NIFS and Sokendai, A. KAGEYAMA, Kobe U., N. OHNO, U. Hyogo, Y. TAMURA, Konan U., M. SHOJI, NIFS — Virtual Reality (VR) technology is a very powerful tool in analysis of simulation data and development of experimental devices, because it is possible to analyze the complex structures in three-dimensional space with a deep absorption into the VR world by scientific visualization technology. In the previous paper, both of simulation results and experimental device data were visualized integrally by the VR system to analyze directly the simulation results in the device. We showed a pressure isosurface, magnetic field line and particle trajectory in the virtual Large Helical Device (LHD). Recently, through the interface code of the data converter, an equilibrium plasma by HINT2 code which can calculate plasmas in the realistic magnetic structure is visualized in the LHD vessel with the objective description by the VR system. It becomes possible to display the magnetic islands and stochastic structure in the periphery and divertor region with Poincare map in the VR space. We will discuss the magnetic structures and drift particle orbits in the periphery and divertor regions. We believe that the buildup in this paper will boost up the research of the fusion plasmas.

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