

2024年度第2回可知化センシングユニットセミナー  
2024年6月13日 13:30-14:30 研究一期棟 601 会議室  
The 2<sup>nd</sup> S and I unit seminar

13:30-14:30 June 13<sup>th</sup> 2024 at 601 meeting room, the 1<sup>st</sup> research building

Title: Development of diagnostics and plans for burning plasma experiments on HL-3 tokamak

Prof. Deliang Yu  
Southwestern Institute of Physics, Chengdu, China

Abstract:

HL-3 is a newly constructed tokamak in SWIP and the first plasma was obtained in the year 2020. Focused on the performance of HL-3, around 40 sets of diagnostic systems were developed. This presentation addresses the progress of diagnostic systems and the preparation for the deuterium-tritium experiments. The report consists of four parts, the development of diagnostics on HL-3, overview of deuterium-tritium diagnostics, design progress of the deuterium-tritium diagnostic systems as well as the challenges and related issues. The first part introduces the status of diagnostics measuring the plasma densities, temperatures and plasma radiations, etc. The second part depicts the status and the requirements of the diagnostics for the deuterium-tritium plasma; the third part describes the progress of the diagnostics for the deuterium-tritium, and the last part displays the challenge issues for the diagnostics of the burning plasma.

Host; Kenji Tanaka S and I unit ([tanaka.kenji@nifs.ac.jp](mailto:tanaka.kenji@nifs.ac.jp), EX2226)

中国西南物理研究所のDeliang Yu教授がNIFSを訪問され6月13日にセミナーを開催されます。Deliang Yu教授は西南物理研究所のHL3 トカマクの計測グループのリーダーで、現在HL3 トカマクにおいてD-T実験の準備を進めていらっしゃいます。講演では、HL3 トカマクの計測(~40計測)の現状、DT実験へ向けての計測の準備状況、および、今後の燃焼プラズマの計測の展望についてご講演いただきます。よろしくご参集ください。

世話人 可知化センシングユニット田中謙治([tanaka.kenji@nifs.ac.jp](mailto:tanaka.kenji@nifs.ac.jp), EX2226)