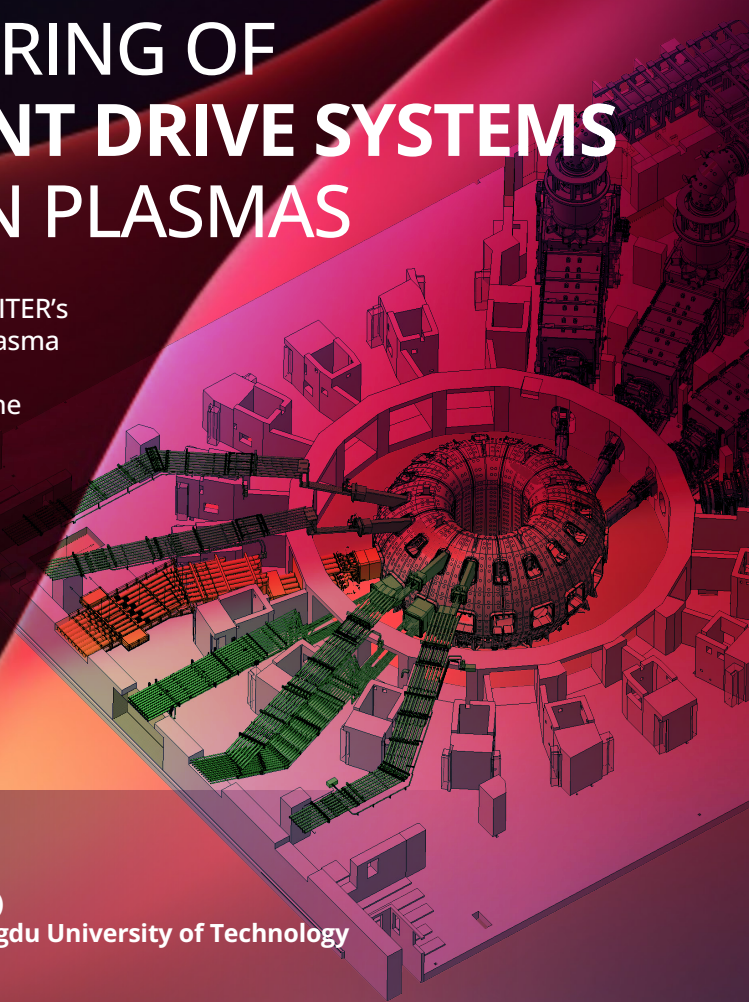
15TH ITER INTERNATIONAL SCHOOL

20 – 24 July 2026
Chengdu, China

PHYSICS AND ENGINEERING OF **HEATING AND CURRENT DRIVE SYSTEMS** FOR MAGNETIC FUSION PLASMAS

Heating and current drive systems are essential to achieving ITER's fusion power demonstration goals. They not only heat the plasma to the high temperatures required for thermonuclear deuterium-tritium fusion, but also drive electric currents in the plasma and control its behaviour. To meet these objectives, magnetic fusion devices employ a range of heating and current drive systems based on the injection of radiofrequency waves and fast neutrals into the plasma. These systems involve a wide range of engineering designs, involve significant technical challenges, and rely on complex physics processes that must be described in an integrated manner, including the reaction of the plasma to such waves/fast neutrals.



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