

Fifth Technical Meeting on Divertor Concepts

Tuesday 28 October 2025 - Friday 31 October 2025

IAEA Headquarters

Topics

Towards Integrated Scenarios for Exhaust

Keywords: compatibility of exhaust with ELM-free pedestal regimes, divertor volume impact on confinement, constraints governed by core performance for reactor relevant geometries, control and optimisation of radiation fronts, mid-plane power decay length, transient heat and particle fluxes and their mitigation, radiative power exhaust, experiments and simulations of in core-edge integration, virtual twins.

Divertors for Next-Generation Devices

Keywords: safe operation, control diagnostics, protection from neutron flux, component lifetime, cassette design for remote maintenance.

Divertor Engineering and Materials

Keywords: armor materials, target geometry, cooling system design, cooling channel arrangement, heat sink activation, thermal conductivity and ageing, lessons learned from previous engineering changes and machine upgrades, divertor design workflows.

Scrape-off-Layer and Divertor Physics

Keywords: experiments and modelling for reactor-relevant and advanced geometries, main chamber interactions, particle exhaust.

X-point and other Radiator Regimes

Keywords: experiments and modelling of regimes where a significant proportion of the heating power is radiated in the mantle and vicinity of the primary x-point(s).