



# Welcome and organization of *Thrust 4: Stellarators*

**Thrust 4 meeting, September 3, 2021**

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(also on behalf of Andreas Dinklage and Arturo Alonso)**



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# What is *Thrust 4: Stellarators*?



- ❑ The 14 ongoing TSVVs are grouped into five *thrusts*. Each thrust covers a broad research area:
  - Thrust 1: Pedestal & SOL Turbulence
  - Thrust 2: Edge Physics & Plasma-Wall Interaction
  - Thrust 3: MHD & Runaway Electrons
  - Thrust 4: Stellarators
  - Thrust 5: Whole-Device Modelling
- ❑ Thrusts are platforms for discussion and regular interaction among the relevant (in terms of topics) TSVV PIs, WP Leaders and E-TASC SB members.
- ❑ *Thrust 4: Stellarators* is the interface among TSVVs 12&13, WPW7X, and representatives from WPPriO (X. Litaudon) and the E-TASC SB (F. Jenko and L. Villard).

TSVVs 12&13 are stellarator-specific and address two of the most important problems in stellarator theory: **Stellarator Optimization** and **Stellarator Turbulence Simulation**.

Developments in TSVVs 12&13 are relevant for the design of next-generation stellarators and for their application to W7-X campaigns, and therefore for the research programme of WPW7X.



## Coordination of TSVVs 12&13 with WPW7X

- ❑ We take advantage of the successful scheme for scientific coordination, collaboration and communication within the W7-X Team, that has been working for years. Two main elements:
  - ❑ Topical Groups: Turbulence, Scenarios, Profiles, MHD, Edge and Divertor, Fast Ions, Impurities, Plasma Wall Interaction.
  - ❑ Weekly W7-X Physics Meeting (on Wednesdays, chaired by TFL/DNFL of WPW7X).
- ❑ This framework provides a natural and ideal way to establish the coordination between WPW7X, and TSVVs 12&13. Task Leaders and team members of TSVVs 12&13 are integrated into it.
- ❑ I. Calvo (WPW7X Deputy Task Force Leader and Thrust 4 facilitator) attends the monthly technical meetings of TSVVs 12&13. These meetings are open to the whole W7-X team when relevant.

## Thrust 4 meetings

- ❑ Two meetings per year (in principle, in March and September) that bring together all Thrust 4 members.