T&T Experimental Task Overview (D. Darrow, D. Stutman)

GOAL I	EXPERIMENTAL APPROACH	Relevant XP
Solve the power balance puzzle (T_i >> T_e -> χ_i < 0) and validate TRANSP as a tool for local transport analysis	• Check if anomaly still exists after field error correction & high temp bake out	talk S. Kaye 223/Stutman
	• Check diagnostics: - T_e MPTS vs. XCS, electron tails	206/Bitter
	- T_i CHERS	talk R. Bell
	• Check anomalies in electron/ion collisional coupling at low A	204/Kaye
	• Check anomalous ion heating (CAEs, streamers, neo-classical viscous effects …)	data from several XPs 223/Stutman

GOAL II	EXPERIMENTAL APPROACH	Relevant XP
Quantify core and edge transport and turbulence: - H- mode vs L-mode - ELMS vs ELM-free - NBI vs RF	• Global confinement / local transport scaling	203/Kaye 223/Stutman
	• H-mode power threshold scaling	215/Bush
	• ELM effects on confinement	227/Bush
	• Edge turbulence measurements	224/Zweben 223*/Gilmore
	• Transport in RF driven H-modes	Leblanc/NE

* NE = not executed

GOAL III	EXPERIMENTAL APPROACH	Relevant XP
Dedicated tests of predicted transport improvement and reduced turbulence at low A, high beta and large flow shear 'CD milestone'	• Intra-machine aspect ratio scaling	Kaye/NE
	• Non-H mode transport scaling (ρ^* and rotation effects)	223/Stutman
	• Edge turbulence measurements	224/Zweben 223*/Gilmore
Demonstrate large Bootstrap fraction	• High β_{pol} H-mode	226/Kaye