Plasma & Fluid Dynamics Programme: Research Projects during the 2017 Festival de Théorie, Aix-en-Provence

#	Proposed by	Festival Research Topics	Fellows
1	N. Besse & O.D. Gurcan & P. Morel	Mixing Logarithmically Discretized and Multi-Water-BagModels	Y. Li
2	H. Che & P.H. Diamond	1) How to Sustain Langmuir Turbulence?	
3		2) How does one formulate Resonance Broadening for Non-Diffusive Scattering?	
4		3) How does Large Ku Transport Scale Below the Percolation Threshold?	Z. Boyu
5		4) Tackling the Cubic Nonlinearity-Mean Field Transport for Fluid (Cubic) Heat Flux Regimes	J. Zielinski
6		5) Revisiting Shear Decorrelation using the Kraichnan Model	
7	P.H. Diamond & Z. Guo	1) Simple models of avalanching in sub-critical transitions	S. Xu
8		2) A predator-prey model with Phase Curvature	G.J. Choi
9	G. Dif-Pradalier & Ph. Ghendrih	Confinement performance with sandpiles	E. Caschera, J. Li
10	D. Escande & D. Zarzoso	Back to the future... of fusion	R. Singh
11	X. Garbet & A. Smolyakov	Turbulent generation of convective cells in magnetized plasmas	F. Wilczynski, W. Zhong
12	X. Garbet & M. Lesur	Nonlinear, kinetic dynamics of interacting vortices in phase-space	A. Dudkovskaya
13	G. Giorgiani, H. Guillard & E. Serre	Coupling of evolutive Equilibrium and transport in the SOL.	T. Camminady
14	O.D. Gurcan & T.S. Hahm	1) Gyrokinetic study of generation of mesoscopic anisotropic structures in turbulent plasmas	P. Donnel
15		2) Development of bounce- kinetic reduced model for trapped particle driven turbulence	L. Chôné
16	D.W. Hughes et al	Revisiting the Balmforth-Llewellyn Smith-Young model for double-diffusive convection	W. Guo, F. Widmer
17	Y. Kosuga & E. Tobisch	1) Detuned resonances of drift waves	G. Colyer
18		2) Dynamical energy cascades among drift waves	X. Fan
19	J.J. Rasmussen et al.	Non-local transport and turbulence spreading	N. Cao, M. Idouakass