

COMET Plasma plume effects in the context of electric propulsion: a state of play

	9:00 – 9:10	Welcome + Short introduction	C. Boniface - CNES, P. Sarrailh - ONERA
1) Experimental characterization and modeling of the plasma plumes			
1.1	9:10 – 9:30	<i>Way of improving Electrical Thruster plumes modelling</i>	L. Garrigues – CNRS
1.2	9:30 – 9:50	<i>Particle-In-Cell models of Hall thruster plumes: from hybrid to full kinetic three-dimensional representation</i>	F. Taccogna -CNR
1.3	9:50 – 10:10	<i>Effect of the geomagnetic field on the expansion of a 3d plasma plume: hybrid PIC/fluid simulations</i>	F. Cichocki, M. Merino, E. Ahedo – UC3M
1.4	10:10 – 10:30	<i>Characterization of Hall thruster plume by way of Langmuir probes, energy analyzers and ExB probes</i>	S. Mazouffre – CNRS
1.5	10:30 – 10:50	<i>Plasma plume characterization</i>	PQ. Elias, D. Packan – ONERA
Coffee break (15 min)			
2) Experimental characterization and in-flight experiments of plasma plume effects			
2.1	11:05 – 11:25	<i>Modelling, Analysis and validation : plasma plume challenges</i>	B. Zitouni , J Laube – OHB
2.2	11:25 – 11:40	<i>Effect of erosion and contamination on the material thermal control and on the electrostatic discharge threshold</i>	V. Inguibert – ONERA
2.3	11:40 – 11:55	<i>Arcing and direct-drive</i>	V. Inguibert – ONERA
2.4	11:55 – 12:15	<i>Challenges to accurate ground measurements of plasma plume divergence in Hall thrusters</i>	O. Duchemin – SAFRAN
Lunch (1h45)			
3) Spacecraft plume interaction at the system level			
3.1	14:00 – 14:20	<i>Modeling of the electrostatic behavior of the spacecraft interaction with plume at the Spacecraft system</i>	S. Hess, P. Sarrailh – ONERA
3.2	14:20 – 14:40	<i>Numerical simulations of electric propulsion multifiring</i>	V. Perrin, A.Sita , A. Iffly – TAS
3.3	14:40 – 15:00	<i>System analysis of erosion and contamination</i>	T. Lagrée – ADS
3.4	15:00 – 15:20	<i>RF Impact of HET Thruster on Antenna Radiation Patterns and On-board Receivers</i>	A. Piche – ADS
4) Round table on the new missions and perspectives			
	15:20 – 16:30	<ul style="list-style-type: none"> - Discussion and synthesis on the subjects treated during the previous sessions - What the new constraints for future missions? - Constraints on the plume effects can be take into account in the thrusters design ? or should be prevent at the system level or at the level of the other sub-systems? 	Everybody
End of meeting			