

# Aerospace Thematic Workshop: Fundamentals of Aerodynamic Flow and Combustion Control by Plasmas



Les Houches – Mont-Blanc, France  
 March 28 – April 1, 2011  
<http://www.eucass.eu/node/442>

	Monday, March 28	Tuesday, March 29	Wednesday, March 30	Thursday, March 31	Friday, April 1
<b>Topic</b>	<b>Plasma assisted combustion</b>	<b>Diagnostics</b>	<b>Kinetics modeling</b>	<b>Aeroflow control</b>	<b>Advanced modeling</b>
9.00-10.00	1. Denis Veynante (Ecole Centrale, FRANCE), "Current needs and challenges in combustion"	6. Jay B. Jeffries (Stanford, USA), "Tunable diode laser absorption diagnostics for combustion, propulsion, and plasmas"	11. Nikolay Popov (SINP MSU, Moscow, RUSSIA), "The kinetic processes initiated by pulsed nanosecond discharges in air"	13. Jonathan Poggie (AFRL, USA), "Plasma-based flow control for high-speed flight"	17. Judit Zador (Sandia National Laboratories, USA), "Elementary kinetics of low-temperature autoignition chemistry"
10:00-10:30	Coffee break				
10.30-11.30	2. Andrei Starikovskii (Princeton, USA), "Plasma assisted ignition below self-ignition threshold in H <sub>2</sub> , H <sub>2</sub> -CO and hydrocarbon-air mixtures"	7. Frédéric Grisch (CORIA, FRANCE), "Experimental and numerical investigation of ignition of methane-air mixtures by nanosecond pulsed discharges"	12. Alexander Starik (CIAM, Moscow, RUSSIA) "Reaction kinetics with excited molecules. Application to novel combustion concepts"	14. Erich Schuelein (Aerospace Center DLR, Germany), "Investigation of steady and pulsed energy addition into supersonic flow"	18. Elena Filimonova (JIHT, Moscow, RUSSIA), "Electrical discharge effect on the multistage inflammation and combustion: a chemical kinetics mechanism and practical application"
11.30-12.30	3. P. Tardiveau (LPGP Orsay, FRANCE), "Single pulse corona discharges for ignition at high pressure and low temperature - discharge physics and plasma kinetics"	8. Campbell Carter (AFRL, USA), "KHz imaging diagnostics for combustion applications"	Free time	Free time	19. <b>Plenary session:</b> Round table discussions and conclusions
12.30-14	Lunch				
14.00-17.00	Free time				
17.00-18.00	4. Igor Adamovich (OSU, USA), "Nanosecond pulse nonequilibrium discharges for plasma assisted ignition and high-speed flow control"	9. Peteer Paris (Univ. of Tartu, Estonia), "Estimation of electric field strength in low temperature plasmas by optical emission spectrum"	Free time	15. Anatoly Maslov (ITAM, Novosibirsk, RUSSIA), "Dielectric barrier discharge (DBD) application for separated flow control"	
18.00-19.00	5. Azer Yalin (Colorado State University, USA), "Laser Ignition: Application to Internal Combustion Engines and Research Directions"	10. Christof Schulz (Institute for Combustion and Gas Dynamics, Duisburg, Germany), "Multispecies diagnostics in high temperature reaction systems"		16. Alex Likhanskii (Tech-X Corporation, USA), "DBD plasma actuators for active flow control: optimization challenges"	
Dinner				Banquet Dinner	
20.30-22.30	Poster Session 1	Poster Session 2	Poster Session 3		