

# High Power Microwave Defense & Security Workshop

March 9, 2011 - French German Research Institute of Saint-Louis

## Final programme

8:00	Registration at the main gate (ID / passport)	
8:30	Welcome and introduction of the day	L. Merlat, <i>ISL</i>
8:40	A short information information about the R&T activities in Germany	R. Färber, <i>WTD-81</i>
8:50	The French policy on HPM systems	X. Grison, <i>DGA</i>
<b>Session: HPM systems</b>		
9:00	A road map toward HPM weapons	JP. Brasile, <i>Thales</i>
9:20	Overview of HPM research at FOI	Sten Nyholm et al, <i>FOI</i>
9:40	UWB HPM at ISL: the GIMLI project and other applications	P. Delmote et al, <i>ISL</i>
10:00	Diehl HPEM source development	R. Stark et al, <i>Diehl GmbH</i>
10:20	MOUNA : a wideband source based on the combination of an innovating resonant transformer and an oil peaking switch	R. Pecquois et al, <i>Univ Pau</i>
10:40	Off-the-shelf active arrays for HPM radiation and associated design rules	F. Christophe et al., <i>ONERA</i>
11:00	<b>Break</b>	
<b>Session: HPM simulations</b>		
11:20	Numerical 3D-EM tools for modeling of HPM devices	R. Cousin, <i>CST</i>
11:40	Particle-in-cell simulations of a virtual cathode oscillator with feedback mechanism	T. Hurtig et al, <i>FOI</i>
<b>Session: HPM components</b>		
12:00	Compact Power Supply based on Electro Explosive Opening Switch for HPEM Applications	M. Jung, <i>Rheinmetall</i>
12:20	Development of compact, repetitive Marx generators for HPM applications	R. Bischoff et al, <i>ISL</i>
12:40	Helical Antennas Energized by Transient Marx Generators	D. Giri, <i>Pro-Tech</i>
13:00	<b>Lunch break</b>	
14:20	Flexible UWB generators based on laser photoconductivity	B. Vergne, <i>ISL</i>
14:40	Design of a HPM source for IED remote disabling/ experimental tests	N. Mora et al, <i>EPFL</i>
15:00	Research on the performance of a high-voltage spark gap using Galden as liquid dielectric	R. Bischoff, <i>ISL</i>
<b>Session: HPM vulnerability and proving ground</b>		
15:20	Application of Transient Pulses on Power Supply Networks Using Commercial off-the-Shelf (CotS) Hardware	J. Hagmann et al, <i>Uni BWB Hamburg</i>
15:40	Application of Transient Pulses on Power Supply Networks Using Commercial off-the-Shelf (CotS) Hardware	D. Hamann et al, <i>Uni Leibnitz Hannover</i>
16:00	Behavior of combined Lightning- HEMP- Protection Devices to HPEM Overvoltage Input Signals	M. Nyffeler et al, <i>Armasuisse</i>
16:20	<b>Break</b>	
16:40	Ultrafast protectors against EMP based on superconducting and magnetic thin films	S. Balevicius et al, <i>SPI</i>
17:00	105m long anechoic chamber for High Power Microwave measurements	JF. Rosnarho et al, <i>Siepel</i>
17:20	Defense Electromagnetic applications	S. Tortel, <i>CEA Gramat</i>
17:40	<b>End of the workshop</b>	