



FRENCH-GERMAN RESEARCH INSTITUTE OF SAINT LOUIS

31 January 2011/IV-IM

PROGRAMME
of the ISL-symposium dedicated to the research topic
“Electrical engineering”
to be held at ISL on 10 March 2011 - Start: 09:00 a.m.

Thursday, 10 March 2011

09:00 a.m. Welcome addresses ISL-Directors

Chairmen: ICA GRISON and TRDir ZÖLLNER

09:10 a.m. Presentation of national requirements in the field of "Electrical engineering" GRISON, ZÖLLNER

09:30 a.m. Introduction and overview of ISL-work SPAHN, MERLAT, ISL

NQR

09:50 a.m. Recent improvements in NQR TRONTELJ Z.,
IMFM

10:10 a.m. Introduction to the detection of illicit substances with pure NQR technologies SCHUNCK Th.,
HIMMELSBACH R.,
KRÜGER D., MERLAT L.,
ISL

10:30 a.m. The role of quadrupole resonance in security RAYNER T.,
Rapiscan Systems Ltd

10:50 - 11:10 a.m. COFFEE BREAK

Electromagnetic launchers

11:10 a.m. Payload acceleration using PEGASUS HUNDERTMARK S.,
SCHNEIDER M.,
VINCENT G., ZETTLER G.,
ISL

11:30 a.m. Efficiency of a railgun against anti-ship missiles GALLANT J.,
VAN DE MAAT P., *RMA*

11:50 a.m. RAFIRA in 2010: the way towards an automated multishot system SCHUPPLER C.,
SCHNEIDER M.,
ALOUAHABI F., *ISL*

12:10 a.m. Flight test results of investigation of acceleration effects on a gun launched rocket engine structure LANCELLE D., BOZIC O.,
BURGDORF J., *DLR*

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12:30 a.m. - 02:00 p.m.

LUNCH

02:00 p.m. New experiments with the hexagonal segmented railgun VINCENT G.,
HUNDERTMARK S., *ISL*

02:15 p.m. Remarks on the use of Rogowski coils and shunts for measurement of high current transients TELLINI B., *DSEA Pisa*

Solid state switches

02:35 p.m. SiC related research at ISL SCHARNHOLZ S., *ISL*

02:55 p.m. Optically triggered SiC thyristors and a first evaluation for pulsed power applications DHEILLY N., PLANSON D.,
Ampère

03:15 p.m. Design and simulation of silicon carbide diodes and thyristors KONRATH J.-P., *ISL*

03:35 - 03:55 p.m.

COFFEE BREAK

03:55 p.m. High power semiconductor components and solid state switches BILL P.,
WELLEMAN A.,
ABB Switzerland Ltd,
Semiconductors

Electric armour

04:15 p.m. Simulations and experiments for a protection system against shaped charges ZORNGIEBEL V., *ISL*

Power supplies

04:30 p.m. Pulsed power modulators with novel semiconducting devices KAESLER W., *PPT*

04:50 p.m. Investigation of a fast capacitor charger in combination with a powerful primary energy source BROMMER V., *ISL*

05:10 p.m. Meeting between government representatives and ISL-scientists:
- Comments of the Advisory Board representatives on submitted matters.
- Preparation of the programme 2012.

07:00 p.m.

SYMPOSIUM DINNER
