IEEE 15th International Symposium on

Electromagnetic Launch Technology

The EML Symposium is a biennial event that serves as the principal forum for the discussion, interchange, and presentation of research on critical technologies for accelerating macroscopic objects or projectiles to hypervelocities using electromagnetic or electrothermochemical launchers.

The 15th EML will be held May 17-20, 2010, at the Royal Military Academy in Brussels, Belgium. This event is co-hosted by the Department of Weapon Systems and Ballistics of the Royal Military Academy and the Institute for Advanced Technology, The University of Texas at Austin under the sponsorship of the European Electromagnetic Launch Society (EEMLS); IEEE's Nuclear and Plasma Sciences Society; and the U.S. Army Research, Development and Engineering Command's Army Research Laboratory (ARL).

During the Symposium, researchers share and exchange a wealth of knowledge through oral and poster presentations. The Symposium's proceedings are the major archival source of papers published in this field.

EML TECHNOLOGY

We are at the threshold of a new era in the applications of electromagnetic launch technology. Significant developments in hypervelocity electromagnetic launch and in hypervelocity high-G guidance and control components have provided the impetus for exploring advanced electromagnetic launchers capable of providing revolutionary new capabilities.

The ability to use electromagnetic energy to controllably propel objects to extremely high speeds has broad and important consequences for many elements of our society, including transportation, communications, energy, national defense, and space. The technology for using electromagnetic energy pulses to accelerate materials to extremely high speeds is only now sufficiently advanced that it is being exploited to evaluate the survivability of space structures and the survivability and lethality of military weapons systems. Electromagnetic launchers are now capable of accelerating objects to such high speeds that projectiles are able to travel many hundreds of kilometers or penetrate the most advanced modern armors, and electromagnetic launchers have even reached sufficiently high speeds to put objects in orbit around the earth.

Abstracts Due
July 10th
2009

EEMLS NUCLEAR & PLASMA SCIENCES SOCIETY RDECOM

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EML 2010

Submit Abstracts online at emlsymposium.org

Abstracts of proposed papers are solicited from those actively interested and performing research in electromagnetic launch technology. The abstract should be a self-contained description of the contribution of the future final paper and why it would be of interest to Symposium attendees. Major results should be clearly summarized, with an indication of what additional material will be in the final paper. Author packets for preparing manuscripts will be mailed to authors whose abstracts are accepted.

- Download the abstract template at www.emlsymposium.org.
- Authors must submit their abstracts in PDF format via web upload.
- Abstracts should be at least 200 words but limited to a single page.
- The official language is English.
- Abstracts must be unclassified and cleared for public release with unlimited distribution.

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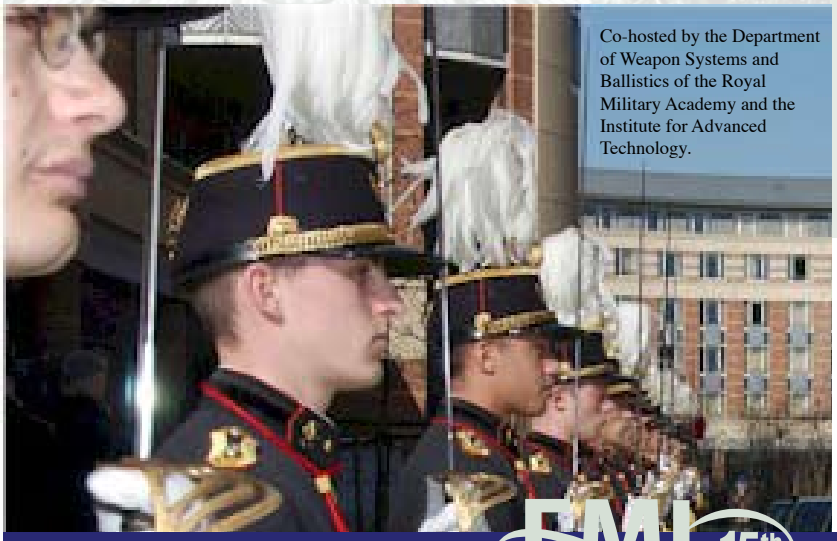
Peer-Reviewed Proceedings

The EML Symposium is committed to maintaining high standards of quality in conference presentations and published proceedings. Each manuscript will be peer reviewed by at least two referees in accordance with IEEE policy. All papers accepted for publication will be published in a special issue of IEEE's *Transactions on Plasma Science*.



Co-hosted by the Department of Weapon Systems and Ballistics of the Royal Military Academy and the Institute for Advanced Technology.

Topics

Launchers
- EM Coilguns
- EM Railguns
- Electrothermal/Electrothermal-Chemical Launchers

Projectiles
- Armatures
- Integrated Launch Packages
- Launch Package Components
- High-G Sensors
- Guidance, Navigation, and Control

Pulsed-Power Supply Technology
- Energy Storage
- Power Conditioning
- Switching
- Controls

Modeling and Simulation
- Computational Techniques
- Modeling / Simulation Comparison

Diagnostic Techniques

Applications
- Land, Sea, Air
- Earth-to-Space Launch
- Magnetic Levitation
- EM Armor
- Industrial

Directed Energy Weapons

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EML 15th Brussels

Chairs
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Mr. Johan Gallant, Royal Military Academy