### MAGLEV'2002 ORGANIZATION

After Germany MAGLEV'1995, Japan MAGLEV'1998 and Brazil MAGLEV'2000, Europe and more particularly, Lausanne on the Geneva Lake is proud to organize MAGLEV'2002, which will be held at the Swiss Federal Institute of Technology (French abbreviation EPFL, for Ecole Polytechnique Fédérale de Lausanne).

### **VENUE**

Lausanne, city of Europe, town of culture and leisure, has many assets to attract the visitor. We are delighted to welcome you in Lausanne and make you discover its attraction. We are sure that you will let yourselves be conquered by its charm and its beauty and that you will like it as we like it more each day.

The lakeside city of Lausanne, just 60 km from Geneva in French-speaking Switzerland, offers a density of sport leisure, entertainment and cultural opportunities, which for a town of such modest size (pop. 125,000, urban district 250,000) is unique. Visiting Lausanne, for work or play, is always an event.

This agreeable lifestyle is only one side of Lausanne nature. The Olympic Capital is also an industrious city of learning, business, congress and medical care. Visitors discover a place of ancient history, with pleasant, traffic-free shopping streets and a broad choice of interest and entertainment ranging from museums, galleries and theaters, to ballet, music and nightlife.

# AIMS OF THE CONFERENCE

The objectives of "MAGLEV'2002 - The 17th International Conference on Magnetically Levitated Systems and Linear Drives" are to present and discuss the state of the art of the social, environment, economical, scientific and technical aspects of high speed MAGLEV and urban passenger transportation systems and the latest developments on magnetic levitation, linear motors, as well as electromagnetic propellers and industrial applications. MAGLEV'2002 will consist of three major parts:

- MAGLEV'2002 Opening Day: Invited speakers will present the state of the art. This day is dedicated to non-specialist public interested in the political, economical, social and industrial aspects of Maglev Systems;
- MAGLEV'2002 Conference: Presentation of the papers, dedicated to specialists of the different concerned fields;
- **EPFL CERN Visit Day**: Visits of EPFL laboratories and CERN in Geneva will be proposed.

## **WORKING LANGUAGE**

The working language of the Conference is English, which will be used for all printed material, presentation and discussion.

## **DEADLINES**

Intending authors should note the following deadlines:

Receipt of synopses, New Date:

Notification of provisional acceptance:

Receipt of full typescript for final review

April 15, 2002

# **TOPICS**

The MAGLEV'2002 will cover all technical topics and aspects related to the following areas of the program.

- 1 MAGLEV World Wide High Speed Industrial Developments and Projects
- 1.1 Scientific, Technical And Industrialization Status

- 1.2 Marketing, Political And Financial Aspects
- Social, Environmental And Ecological Aspects Eco Balances
- 1.4 Comparisons: Evaluations Of High Speed Systems (MAGLEV versus TGV, Air Traffic)

#### 2 MAGLEV - New Ideas

- 2.1 Scientific, Technical And Industrialization Status
- 2.2 Marketing, Political And Financial Aspects

# 3 URBAN TRANSPORTS (Linear Propulsion) - Industrial Developments and Projects

- 3.1 Scientific, Technical And Industrialization Status
- 3.2 Marketing, Political And Financial Aspects
- 3.3 Environmental And Ecological Aspects Eco Balances
- 3.4 Comparisons: Evaluations With Classical Systems

## 4 MAGLEV - Power Supply Strategy

- 4.1 Ground Power Supply Network to Local Power Network
- 4.2 Power Transformation Station
- 4.3 Power Supply for Propulsion
- 4.4 Energy Balance

## 5 MAGLEV - Vehicle - Guide way - Infrastructure

- 5.1 Vehicle and Spatial Integration Designs
- 5.2 Aerodynamic Behavior And Aerodynamic Impacts On Design Constraints
- 5.3 Dynamic Mechanical Resonance And Vibrations, Speed And Frequency Limits

### 6 MAGLEV And HSTS - Safety And Operation Control

- 6.1 Safety And Design Constraints (Stations, Vehicles, Track, Tunnels)
- 6.2 Safety And Exploitation Constraints
- 6.3 Safety And Innovations

### 7 Propulsion And Linear Motors: Motors And Controls

- 7.1 Scientific and Technical Developments
- 7.2 Transport System Applications
- 7.3 Industrial Applications
- 7.4 Propulsion: Magnetic Hydrodynamic

# 8 Magnetic Levitation and Guidance: Transducers And Controls

- 8.1 Electromagnetic Levitation (EML or EMS) and Guidance
- 8.2 Electrodynamics Levitation (EDL or EDS) and Guidance
- 8.3 Super Conducting Quantum Levitation (SQL)

# 9 Transfer Of Energy To A Vehicle And On Board Energy Supply

- 9.1 Scientific and Technical Developments
- 9.2 High Speed Transport System Applications (Transfer With And Without Mechanical Contacts)
- 9.3 Low Speed Transport System Applications (Transfer **Without** Mechanical Contacts)
- 9.4 Industrial Applications (Transfer **Without** Mechanical Contacts)
- 9.5 Fuel Cells, Super Condensators

# 10 Magnetic Bearings - Typical Industrial Applications

- 10.1 Passive Magnetic Bearings
- 10.2 Active Magnetic Bearings
- 10.3 Super Conducting Magnetic Bearing (SMB)

### CONTENTS OF SYNOPSES

The synopses should consist of:

- a title and author and co-author names:
- a **topic number** referring to the chosen area of the program;
- an **abstract** with no more than 50 words;
- a 2 to 3 pages **summary**, including the abstract;
- key words;
- key diagrams;
- · a reference list.

Example of synopses format can be downloaded from the host:  $\underline{www.maglev2002.ch}$ 

## SUBMISSION OF SYNOPSES

Full hard copy and one anonymous copy must be posted to the conference secretariat.

One hard copy and one anonymous copy must be E-mailed to: <a href="mailev2002@epfl.ch">maglev2002@epfl.ch</a>

## **PAPERS**

Authors of papers provisionally selected for presentation will receive a notification and can download the instructions for preparing the papers from the host: <a href="www.maglev2002.ch">www.maglev2002.ch</a>

Contribution to MAGLEV'2002 must be presented as a lecture presentation. A manuscript must be submitted in English for inclusion in the MAGLEV'2002 Proceedings (CD-ROM).

Papers will be strictly limited and selected on the basis of wide audience appeal, ease of understanding and potential stimulation of broad ranging discussion.

Final selection will be based on the full paper. The paper will only be included in the Conference Proceedings after receipt of **one full registration fee per paper in due terms**.

# PROGRAMME AND REGISTRATION

A provisional program and registration form will be published a few months before the conference and sent to all whom papers have been accepted, co-author who completed their data sheet – and to all who requested a copy at the MAGLEV'2002 secretariat by sending E-mail with their full postal address.

# **SOCIAL PROGRAM**

MAGLEV'2002 Opening Day will end up by an open discussion cocktail.

The reception will take place in the evening of September 3, at the CIO Museum, location of the International Olympic Committee. Participants will have the opportunity to visit the Museum during the reception.

On September 4, the gala dinner will be at a specific Lausanne restaurant.

For accompanying persons, sightseeing tours organized by the Lausanne Tourist Office will offer the opportunity to enjoy visiting Vaud, Wallis, Fribourg and Geneva States.

### CONFERENCE ORGANIZING COMMITTEE

#### **Conference Chairmen**

M. Jufer (\*), A. Rufer (\*)

Scientific Program Chairman

A. Cassat (\*)

# **Conference Logistic Chairmen**

A. Cassat (\*), P. Germano (\*)

## MAGLEV'2002 Opening Day, Logistic Chairmen

P. Rossel (\*), A. Cassat (\*), M. Mossi (\*\*)

(\*) Swiss Federal Institute of Technology, Department of Electrical Engineering

(\*\*) GESTE SA, Switzerland

## **Conference Scientific Committee**

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| N. Jufer      | University of Lausanne, Switzerland     |  |

# INTERNATIONAL STEERING COMMITTEE

Swiss Federal Institute of Technology

## **International Steering Committee Chairman**

E. Masada University of Tokyo, Faculty of Science & Technology, Department of Electrical Engineering

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## **SECRETARIAT**

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## **WEB SITES**

Conference Site <a href="http://www.maglev2002.ch">http://www.maglev2002.ch</a>
Swiss Federal Institute Of Technology: <a href="http://www.epfl.ch">http://www.epfl.ch</a>
Lausanne Tourism Office: <a href="http://www.lausanne-tourisme.ch">http://www.lausanne-tourisme.ch</a>