



# EMC Distinguished Lecture

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an unseren Aktivitäten  
interessiert sind und den  
Kontakt zu unserem Chapter  
suchen.

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und Forschung!

**Prof. Marcos Rubinstein**

University of Applied Sciences of Western Switzerland  
Yverdon-les-Bains, Switzerland

**"The Lightning Phenomenon"**

**Datum:** 16.04.2021  
**Zeit:** 17:00 -18:00 PM (UTC+2)  
**Meeting:** Online, click [here](#) to join

[Zoom link] <https://tuhh.zoom.us/j/3212339859?pwd=RzVsdVBHdHVRY0hRMINWdXNRaHVmUT09>

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**Hints:** the online meeting invitation will be sent out by email in case of any  
changes. Please **sign up in advance** (E-mail: [cheng.yang@tuhh.de](mailto:cheng.yang@tuhh.de))



## EMC DL Talk by Prof. Marcos Rubinstein

### “The Lightning Phenomenon”

**Abstract:** Lightning is a complex phenomenon composed of numerous physical processes, of which only a few are visible to the naked eye. In this lecture, an overview of the types of lightning that exist in the terrestrial atmosphere will be presented. The main processes in a lightning discharge will be described and discussed in the lecture, pointing out those that are responsible for interference and damages to electronic equipment, for the initiation of fires, and for injury or death to livestock and human beings. Information on the techniques used for the location of cloud-to-ground lightning will also be presented.



## EMC DL Talk by Prof. Marcos Rubinstein

### “The Lightning Phenomenon”

**Biography: Marcos Rubinstein** (M’84–SM’11–F’14) received the Master’s and Ph.D. degrees in electrical engineering from the University of Florida, Gainesville, FL, USA, in 1986 and 1991, respectively. In 1992, he joined the Swiss Federal Institute of Technology, Lausanne, Switzerland, where he was involved in the fields of electromagnetic compatibility and lightning location. From 1995 to 2000, he worked as a research engineer, project manager and program manager at Swisscom in the areas of numerical electromagnetics and EMC. In 2001, he moved to the University of Applied Sciences of Western Switzerland HES-SO, Yverdon-les-Bains, where he is currently a full Professor and head of the Advanced Communication Technologies Group. He is the author or coauthor of more than 200 scientific publications in reviewed journals and international conferences. He is also the coauthor of nine book chapters and the co-editor of a book. He served as the Editor-in-Chief of the Open Atmospheric Science Journal, and currently serves as an Associate Editor of the IEEE Transactions on Electromagnetic Compatibility.

Prof. Rubinstein received the best Master’s Thesis award from the University of Florida. He received the IEEE Achievement Award and he is a co-recipient of the NASA’s Recognition for Innovative Technological Work award and the ICLP Karl Berger award. He is a Fellow of the IEEE and an EMP Fellow, a member of the Swiss Academy of Sciences and of the International Union of Radio Science. .