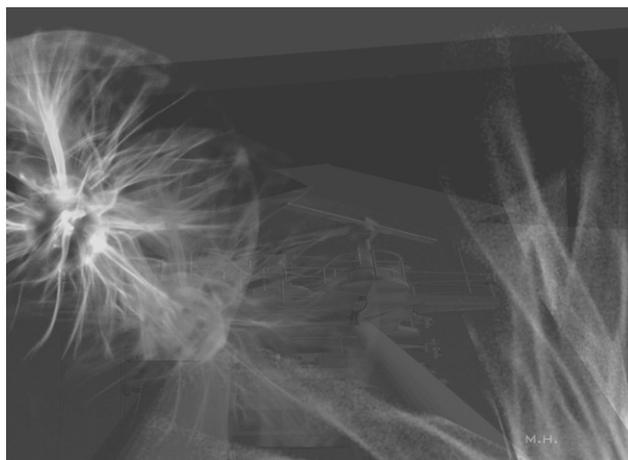


# COMPTES RENDUS PHYSIQUE

Tome 10 (2009) – N° 1



Cover illustration, Marion Helft, UPEMLV.

*Illustration de couverture, Marion Helft, UPEMLV.*

## DOSSIER

New approaches in Electromagnetic Compatibility / *Nouvelles approches en Compatibilité Electromagnétique*

Guest editors / *Rédacteurs en chef invités* : **Françoise Paladian, Joël Hamelin**

- Foreword  
**Françoise Paladian, Joël Hamelin** ..... 1
- Electromagnetic environment and telecommunications: towards a cognitive electromagnetic compatibility  
**Ahmed Zeddami, Gautier Avril, Mohamed Tlich** ..... 4
- Real-time 3D electromagnetic field measurement instrument with direct visualization  
**Jean Rioult, Marc Heddebaut, Divitha Seetharamdoo, Virginie Deniau** ..... 13
- Intra-vehicle digital communications: characterization and simulation of the electromagnetic environment  
**Fatma Rouissi, Olivier Delangre, Virginie Degardin, Martine Lienard, Marc Heddebaut, Virginie Deniau, Pierre Degauque** ..... 22
- Field statistics in a one-dimensional Reverberation Chamber model  
**Ramiro Serra, Flavio Canavero** ..... 31
- Wave chaos techniques to analyze a modeled reverberation chamber  
**Gérard Orjubin, Elodie Richalot, Odile Picon, Olivier Legrand** ..... 42
- Numerical simulation of a Reverberation Chamber with a stochastic collocation method  
**Pierre Bonnet, Fatou Diouf, Cédric Chauvière, Sébastien Lalléchère, Michel Fogli, Françoise Paladian** ..... 54
- The reciprocity theorem applied to finding the best coupling incidence  
**Jean-Pierre Adam, Jean-Christophe Joly, Bernard Pecqueux, Didier Asfaux** ..... 65
- Use of the circuit approach to solve large EMC problems  
**Samuel Leman, Bernard Demoulin, Olivier Maurice, Michel Cauterman, Patrick Hoffmann** ..... 70

*Suite du sommaire page suivante*

*Sommaire (suite)*

- A reduction modeling method to assess the electromagnetic emission of multiconductor transmission lines  
**Guillaume Andrieu, Xavier Bunlon, Jean-Philippe Parmantier, Alain Reineix, Lamine Koné, Bernard Démoulin** ..... 83
- Characterization of radiated electromagnetic fields using equivalent sources – Application to the EMC of power printed circuit boards  
**Lotfi Beghou, Lionel Pichon, François Costa** ..... 91