femto-st
SCIENCES & TECHNOLOGIES

ANNUAL SEMINAR 2021

« Intelligent Systems, Communications & Information Technology »

July 2, 2021

PROGRAM

COMMUNICATIONS & INFORMATION

10H15 - 12H00

Les wafers POI, une solution de rupture pour les filtres des télécommunications du futur : 5G, 6G, WiFi 6/6E,...
Ballandras *Sylvain (frec|n|sys)*

Stratégies de contrôle distribué des microgrids
Pierfederici Serge (LEMTA)

Photon-number entanglement generated by sequential excitation of a two-level atom
Anton-Solanas Carlos (Carl von Ossietzky University)

Problématique de l'injection de données frauduleuses dans les systèmes mécatroniques

Bouquet Fabrice (DISC)

Imaging two photon interference at the quantum level
Devaux *Fabrice (Optics)*

Miniaturized Cs cell atomic frequency references at FEMTO-ST: a brief status
Boudot Rodolphe (Time & Frequency)

SMART MATERIALS & STRUCTURES

14H10 - 15H25

Physical Intelligence as a New Paradigm
Sitti *Metin (Max Planck Institute)*

Machine Learning for Materials Science
Marinica Cosmin   (DEN/SRMP-CEA Saclay)

Dispositifs passifs d'atténuation des vibrations par shunt piézoélectrique : développements récents et applications
Deü Jean-François (CNAM Paris)

AI FOR SMART OBJECTS & SYSTEMS

16H00 - 17H00

Prognostics and health management of fuel cell systems
Yue Meiling (Energy)

Segmentation automatique d'IRM cardiaque basée sur l'intelligence artificielle
Lalande Alain (ImVIA)

A complete photonic neural network based on a multimode laser
Brunner Daniel (Optics)

Data and artificial intelligence for Prognostic and Health Management
Zerhouni Noureddine (AS2M)

FINAL "AMBASSADORS OF FEMTO-ST"

IA & Quantum Technology

13H30 - 14H10

Breast cancer methodology for decision-making based on machine learning tools
Maaouia Aicha (AS2M)

Superradianceon ytterbium clock transition for frequency metrology
Matusko Martina (Time & Frequency)

A complete, paralleland autonomous photonic neural network in a semiconductor multimode laser
Skalli Anas (Optics)

Hydrogen Energy

Modeling of hydrogen-based power-to-gas plant operation for evaluation of control strategies
Duncan Corey (Energy)

How to perform life cycle costing and life cycle assessment in a sustainable Hydrogen Supply Chain Network
Feng LinFei (DISC)

Defects highlighting in polymeric materials constituting type IV hydrogen tanks
Gardavaud Quentin (Applied Mechanics)

Advanced Technology

15H25 - 16H00

Miniaturized atomic clock with pulsed Ramsey interrogation and advanced MEMS cell technology
Carlé Clément (Time & Frequency)

Three-dimensional two-photon polymerization: breakthrough towards scalable integration of photonic neural networks
Grabulosa Adrià (Optics)

Acoustofluidic sensor for detection of bioanalytes
Prudhomme Marc (MN2S)

Tribological Behavior and Performances of Bulk Metallic Glasses
Stoens Solène (Applied Mechanics)