

MEM - Modelisation and Exploration of Materials

- 9:05 1 **Materials Synthesis and Integration in Water Quality Monitoring Sensors**
C5 Contact : **Jean-Christophe GABRIEL** jean-christophe.gabriel@cea.fr
- 9:07 2 **Atomistic study in GaN**
C5 Contact : **Damien CALISTE** damien.caliste@cea.fr
- 9:09 3 **Atomic scale imaging of 2D materials using low voltage transmission electron microscopy**
B51 Contact : **Hanako OKUNO-VILA** hanako.okuno@cea.fr presented by **Carlos ALVAREZ**

SPINTEC - Spintronics and Technology of Components

- 9:11 4 **Spintec overview**
10.05 presented by **Lucian PREJBEANU**
- 9:21 5 **Ultra-sensitive magnetic field sensor for space applications**
10.05 Contact : **Claire BARADUC** claire.baraduc@cea.fr
- 9:23 6 **Magnetic tunnel junctions suitable for memory applications over a large range of operating temperatures**
10.05 Contact : **Bernard DIENY** bernard.dieny@cea.fr
- 9:25 7 **Magnetic memory with reduced write current thanks to microwave assistance**
10.05 Contact : **Bernard DIENY** bernard.dieny@cea.fr
- 9:27 8 **Characterizing electrical signature of magnetic skyrmions**
10.05 Contact : **Helene BEA** helene.bea@cea.fr presented by **Lucian PREJBEANU**
- 9:29 9 **Antiferromagnetic spintronics**
10.05 Contact : **Vincent BALTZ** vincent.baltz@cea.fr presented by **Lucian PREJBEANU**
- 9:31 10 **Development of optically switchable storage layer materials to be integrated in magnetic tunnel junctions**
10.05 Contact : **Ioan-Lucian PREJBEANU** ioan-lucian.prejbeanu@c presented by **Lucian PREJBEANU**
- 9:33 11 **Atomic layer deposition for tunnel barriers in magnetic tunnel junctions**
10.05 Contact : **Ioan-Lucian PREJBEANU** ioan-lucian.prejbeanu@c presented by **Lucian PREJBEANU**
- 9:35 12 **Spintorque-diode detectors for intrachip wireless communication**
10.05 Contact : **Ursula EBELS** ursula.ebels@cea.fr presented by **Lucian PREJBEANU**
- 9:37 13 **Optimisation of spintorque nano-oscillators**
10.05 Contact : **Ursula EBELS** ursula.ebels@cea.fr presented by **Lucian PREJBEANU**
- 9:39 14 **Spin wave manipulation and detection in metallic spintronic materials**
10.05 Contact : **Gilles GAUDIN** gilles.gaudin@cea.fr presented by **Lucian PREJBEANU**
- 9:41 15 **Development of an ultra-fast SOT-MRAM**
10.05 Contact : **Gilles GAUDIN** gilles.gaudin@cea.fr presented by **Lucian PREJBEANU**
- 9:43 16 **Development of compact models for the design of hybrid CMOS/magnetic circuits based on newly discovered spintronics phenomena**
10.05 Contact : **Guillaume PRENAT** guillaume.prenat@cea.fr presented by **Lucian PREJBEANU**
- 9:45 17 **Magnon Transport**
10.05 Contact : **Laurent VILA** laurent.vila@cea.fr presented by **Lucian PREJBEANU**
- 9:47 18 **Electron holography for the high-resolution imaging of magnetic nanotubes for spintronics**
10.05 Contact : **Eric GAUTIER** eric.gautier@cea.fr presented by **Lucian PREJBEANU**
- 9:49 19 **Magnetic tunnel junction as nanosensor to detect propagating spin waves in insulating YIG..**
10.05 Contact : **Ursula EBELS** ursula.ebels@cea.fr presented by **Lucian PREJBEANU**
- 9:51 20 **Manipulation of spin currents and magnetic state at the nanoscale using spin orbit coupling**
10.05 Contact : **Laurent VILA** laurent.vila@cea.fr presented by **Lucian PREJBEANU**

SYMMEs - Molecular Systems and Nanomaterials for Energy and Health

- 9:53 21 **Nanostructured electrolytes for application in fuel cells and batteries. Pushing the understanding using neutron and X-rays techniques**
C5 Contact : **Sandrine LYONNARD** sandrine.lyonnard@cea.fr
- 9:55 22 **Quantum dots connected to silver nanoparticles: towards affordable redox photocatalysts working with visible light**
C5 Contact : **Vincent MAUREL** vincent.maurel@cea.fr
- 9:57 23 **Synthesis & characterization of DNA-hybrids nano-architectures & nano-materials**
C5 Contact : **Didier GASPARRUTTO** didier.gasparutto@cea.fr presented by **Pierre-Henri ELCHINGER**
- 9:59 24 **2D protein crystals on surface: towards applications to advanced lithography and biosensors**
C5 Contact : **Pierre-henri ELCHINGER** Pierre-henri.ELCHINGER@cea.fr

PHELIQS - Quantum Photonics, Electronics and Engineering

- 10:01 25 **Control and analysis of bacteria with an optical resonator**
B51 Contact : **Emmanuel PICARD** emmanuel.picard@cea.fr presented by **Manon TARDIF**
- 10:03 26 **Superconducting Circuits in Silicon Technology**
C1 Contact : **Francois LEFLOCH** francois.lefloch@cea.fr
- 10:05 27 **Polarity engineering of GaN nanowires**
C5 Contact : **Bruno DAUDIN** bruno.daudin@cea.fr
- 10:07 28 **Advanced AlGaIn-based 1D nanostructure growth for UV emission**
C5 Contact : **Christophe DURAND** christophe.durand@cea.fr
- 10:09 29 **Quantum transport in voltage-biased topological Josephson junctions**
C5 Contact : **Julia MEYER** julia.meyer@cea.fr
- 10:11 30 **Interaction effects on topological properties of multiterminal Josephson junctions**
C5 Contact : **Manuel HOUZET** manuel.houzet@cea.fr presented by **Julia MEYER**

INAC presentations
Afternoon session

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- 15:33 26 **Theoretical investigation of advanced magnetocaloric materials**
C5 Contact : **Mike ZHITOMIRSKI** mike.zhitomirsky@cea.fr
- 15:35 27 **Theoretical investigation of finite-temperature spin dynamics**
C5 Contact : **Mike ZHITOMIRSKI** mike.zhitomirsky@cea.fr