

# 1<sup>st</sup> Caribbean Workshop on Frontiers in Functional Materials



**December 5-6, 2019**

**Optical properties**  
**Materials chemistry**  
**Semiconductors** Energy  
**Density Functional Theory**  
**Material Design** Metamaterials  
Growth Synthesis **2D Materials** Synthesis Transport  
**Condensed Matter Physics**  
**Superconductors**  
Photovoltaics **Magnetism**  
**Materials Science**  
Flexible Electronics

**Info and registration:**

**Dr. Alvaro González García**

**Tel.: +57 5 3509509- ext. 3162**

[alvarogonzalez@uninorte.edu.co](mailto:alvarogonzalez@uninorte.edu.co)

**Universidad del Norte**  
Km 5 Via Puerto Colombia  
**Barranquilla, Atlántico, CO**





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**FFM2019****Tentative schedule****Time****Thursday****Friday****9:00****Coffee & registration****9:30**

**Eric Bousquet** (ULiege, Belgium)  
The Ablnit project - focus on magnetism

**Tutorial on MuMax**  
Jeroen Mulkers (UGent, Belgium)

**10:45****Coffee break****Coffee break****11:15**

**Milorad Milošević** (UAntwerp, Belgium)  
Multiscale modeling in superconductivity

**Tutorial on PyBinding**  
Lucian Covaci (UAntwerp, Belgium)

**12:30****Lunch****Lunch****14:00**

**Rafael González**  
Crystal Hall effect in antiferromagnets

**Eric Bousquet**  
BaCuF4: a material with an ideal magnetization-polarization coupling?

**14:45**

**Camilo Andrés Espejo**  
Dielectric properties of Graphene nanoparticles: An approach from the tight binding model

**Andrés Camilo García**  
Physics, Origin, and Design of Novel Functional Materials with Controllable Spin-Splitting

**15:30****Coffee break****Coffee & farewell****16:00**

**Jesús González**  
Vortex states in nanoengineered superconductors

**16:45**

**Álvaro González**  
Tunable 2D-GaAs and Graphene bandgaps in Graphene/GaAs heterostructures

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**17:30****End of day 1**