

*Seminar:* "Geometry&Physics", DFT (IFIN-HH)  
([Seminar Homepage](#)) ([Indico Page](#))

Zoom link: <https://us02web.zoom.us/j/891199217919>

*Date:* Wednesday, November 25, 2020, 17:00 Bucharest time (15:00 GMT)

*Title:* **The duality covariant formulation of Abelian gauge theories on Riemannian four-manifolds**

*Speaker:* **Calin Lazaroiu** (Department of Theoretical Physics, NIPNE)

*Abstract:* I describe the manifestly duality-covariant formulation of Abelian gauge theories on Riemannian four-manifolds. This relies on the notion of parataming of a symplectic vector bundle, a paracomplex analogue of the classical notion of symplectic taming which appropriately encodes all gauge couplings and theta angles (the so-called "gauge kinetic functions") of the theory when working in Euclidean signature. In this formulation, the solutions of the theory are polarized antiselfdual connections on a principal bundle with split weakly Abelian structure group, which give a manifestly duality-covariant description of Euclidean dyons, including far-reaching generalizations of ordinary dyons called dyonic U-folds.