

## **Hopf fibrations and stochastic areas**

**Fabrice Baudoin** (University of Connecticut)

Time **Monday, Dec 5, 2016 at 17:00**

Place **Campus Kirchberg, room B23**

We define and study stochastic area processes associated with Brownian motions on the complex symmetric spaces  $\mathbb{C}\mathbb{P}^n$  and  $\mathbb{C}\mathbb{H}^n$ . The characteristic functions of those processes are computed and limit theorems are obtained. For  $\mathbb{C}\mathbb{P}^n$  the geometry of the Hopf fibration plays a central role, whereas for  $\mathbb{C}\mathbb{H}^n$  it is the anti-de Sitter fibration. This is a joint work with Jing Wang (UIUC).