

Announcement

Seminar on Deformation Quantization

19. 3. 2021 at 2 pm CET

<https://uni-wuerzburg.zoom.us/j/92529190594?pwd=WkJvR1o1QUdldUNSSjFJbHB4c0Z0dz09>

SIMONE GUTT (UNIVERSITÉ LIBRE DE BRUXELLES)

About almost complex structures

On any symplectic manifold, there exist compatible positive almost complex structures. Such an almost complex structure is integrable if and only if it yields a Kähler structure on the manifold. There are symplectic manifolds which do not admit a Kähler structure. We are interested to know whether properties of a non integrable almost complex structure J on a manifold can select geometric properties of this manifold. To tackle this question, we study distributions naturally defined by the almost complex structure J , in particular the one which is spanned at each point by the values of the Nijenhuis tensor associated to J . We relate properties of these distributions to the existence of complex substructures on the manifold.

Invited by Stefan Waldmann