

# Totally geodesic submanifolds of homogeneous $\mathbb{C}P^{2n+1}$

**Andreas Vermeiren**  
**(KU Leuven)**

**Wednesday, March 19, 2025**  
**16:00-17:00h on campus in M.G.004**  
**Analysis & Geometry Seminar, Antwerpen**

In this talk, I will describe the homogeneous metrics on the complex projective spaces  $\mathbb{C}P^{2n+1}$  by using two different approaches based on the theory of homogeneous spaces and Riemannian submersions, respectively. Next, we classify totally geodesic submanifolds in complex projective spaces equipped with an arbitrary homogeneous metric. This talk is based on ongoing joint work with Michaël Liefsoens and Alberto Rodríguez-Vázquez.