

**Raphaël Alexandre**  
**3-manifolds and complex hyperbolic triangle groups**

Fundamental groups of knots and links complements might have non trivial representations in  $SU(2,1)$ . Some are even discrete and/or holonomies of spherical CR structures. To find such representations we explore the census of Falbel-Koseleff-Rouillier. We study the discreteness and deformation of representations through factorizations by complex hyperbolic triangle groups. Related computational challenges will be discussed.