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Colloquium of the Physics Department of ENS

Mercredi 4 Décembre 2024, 13 :30
DPT-PHYS-ENS, salle ConfIV (Département de Physique de l'ENS - 24 rue Lhomond 75005 PARIS)
Domaines : physics

Titre : *An Elegant Twist on Condensed Matter*

Orateur : **Christos Panagopoulos (Nanyang Technological University, Singapore)**

Résumé : *We are generally more familiar with the beauty of images that showcase the natural world than with the beauty inside materials. Advances in theoretical insights, experimental techniques, and reconstruction algorithms, however, now allow us to explore this elegance in fine detail. For example, polymers and ferroelectric ceramics host twist patterns ; chiral liquid crystals display patterns of molecular orientation ; and magnetic materials exhibit axisymmetric whirls of spin. The talk will gradually focus on helical magnetic textures and their viability to influence a superconductor for adaptable recipes for quantum operations. But also, our efforts to quantize helicity, joining the likes of electrical charge and light.*
