

## Séminaire de mathématique physique

(Séance exceptionnelle)



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Conway-type TQFT for tangles and the circuit operad

**Résumé :** Alexander-Conway polynomial is one of the fundamental invariants of links. We introduce a simple extension of this polynomial to ordered tangles. The resulting invariants contain both the coefficients of the Conway polynomial and the Milnor's mu-invariants as partial cases. Their behavior under compositions can be neatly formulated as a Conway-type algebra over an ordered circuit operad. As a by-product of our construction, we also obtain a simple representation of the braid group which gives the Conway polynomial as a certain twisted trace. The talk is self-contained, no preliminary knowledge of the subject is expected. It should be accessible to graduate students.

Jeudi 17 décembre à 15 :00 — salle A318, 3ème étage