SEMPARIS – Séminaires en région parisienne

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TBA

Lundi 25 Novembre 2019, 14:00

IHES, Centre de conférences Marilyn et James Simons(Nokia-IHES Workshop)

Domaines : hep-th

Titre : How will we do Mathematics in 2030?

$\operatorname{Orateur}$: Michael Douglas (Simons Center in Geometry and Physics, SUNY)

Résumé : We make the case that over the coming decade, computer assisted reasoning will become far more widely used in the mathematical sciences. This includes interactive and automatic theorem verification, symbolic algebra, and emerging technologies such as formal knowledge repositories, semantic search and intelligent textbooks. After a short review of the state of the art, we survey directions where we expect progress, such as mathematical search and formal abstracts, developments in computational mathematics, integration of computation into textbooks, and organizing and verifying large calculations and proofs. For each we try to identify the barriers and potential solutions.