



VIENNA
DOCTORAL
SCHOOL
MATHEMATICS

PhD Colloquium

Daniel Scherl:

What the heck is TQFT?

TQFT is short for Topological Quantum Field Theory. That sounds like something that belongs in a physics course rather than a mathematical colloquium. Luckily there is a precise mathematical definition of a TQFT which allows a mathematician such as myself to work on the subject. Furthermore this formalism is also of independent mathematical interest as it can be used to produce invariants of knots and manifolds. This talk will be about the basic concepts that go into the definition of a TQFT and the classification of so called closed TQFTs in two dimensions. Things I want to tell you about include monoidal categories, their graphical calculus, cobordisms and commutative Frobenius algebras. As is customary for the PhD colloquium everything will be at an introductory level, so don't let the fancy words discourage you from joining.

6. June,

13:45-14:30

HS 10, OMP-1