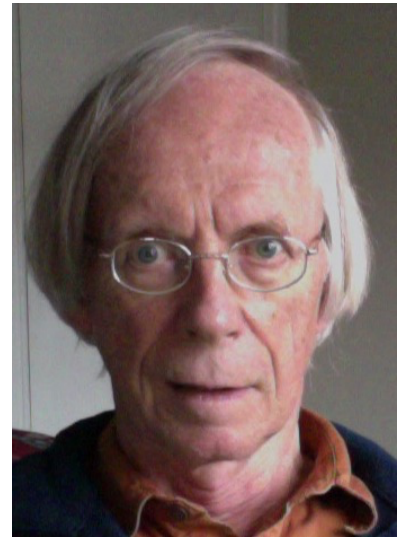




HARVARD UNIVERSITY
17 Oxford Street
Cambridge, MA 02138

Mathematical Picture Language Seminar

Tuesday,
April 4, 2023
9:30 a.m. Boston time



John Cardy

UC Berkeley & All Souls College, Oxford

The \overline{TT} deformation of 2d quantum field theory and modular forms

Abstract: " \overline{TT} " deformed 2d quantum field theory is a non-local theory in which Minkowski space is deformed in a state-dependent but consistent manner. For a massive theory this is equivalent to each particle acquiring a width proportional to its mass in its rest frame, giving rise to simple CDD factors dressing the S -matrix, but for deformed conformal field theories the spectrum becomes quite complicated, and the question of modular invariance of the torus partition function is non-trivial. I will show that this leads to a theory of \overline{TT} deformed modular forms in general. Mass forms turn out to play an important role as eigenforms of the deformation.



Zoom QR Code & Link:

<https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQTog>

<https://mathpicture.fas.harvard.edu/seminar>