
JONATHAN WEITSMAN, Northeastern University

Enhanced symmetry in the semiclassical category and characters of loop groups

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We consider a version of Weinstein's symplectic category, adapted for the case of quasi-Hamiltonian G -spaces. We show that semiclassical quantization in this setting produces the Kac character formula, in analogy with the construction of the Weyl character formula by Guillemin and Sternberg in the symplectic setting. We show that this construction gives a natural action of the modular group on the Kac characters, which we conjecture agrees with Kac's $SL(2, \mathbb{Z})$ action. We conjecture also that a similar construction should give rise to enhanced symmetries—that is, symmetries of the quantization that do not arise from symmetries of the underlying classical system—also in some other examples.