

1083-60-235

Jonathan Weitsman* (j.weitsman@neu.edu), Department of Mathematics, Northeastern University, Boston, MA 02115. *Measures on Banach Manifolds and Supersymmetric Quantum Field Theory*

We show that the functional integrals appearing in a class of supersymmetric quantum field theories may be interpreted as well-defined measures on certain Banach manifolds. We give several examples, and conjecture that these measures are finite.

Assuming the finiteness conjecture, the integral of a certain bounded function should give quantities, such as topological invariants, which are of wide interest in geometry and topology. (Received August 30, 2012)