998-81-184 **Razvan Gelca*** (rgelca@math.ttu.edu), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409, and **Alejandro Uribe**, Department of Mathematics, University of Michigan, Ann Arbor, MI 48109. *On the quantization of the moduli space of flat SU(2)-connections on the torus.*

For a compact simple Lie group Witten suggested a quantization of the moduli space of G-connections on the torus using path integrals. For G=SU(2) this construction can be made rigorous using the quantum group method of Reshetikhin and Turaev. This approach is combinatorial and the quantum observables are rather difficult to compute. We show that the same quantization is obtained by an analytical model, using Weyl's method. As a corollary, we show that the quantization determines the restriction to the torus of the modular functor of the Reshetikhin-Turaev theory. We also show how these results can be used to obtain a basis of the Hilbert space of the quantum double quantization of the torus. (Received February 25, 2004)