1094-58-393 **Nigel Higson*** (higson@math.psu.edu), Department of Mathematics, Penn State University, University Park, PA 16802. *Another look at the analytic solution of the quantization commutes with reduction problem.* Preliminary report.

The quantization commutes with reduction phenomenon was first explored by Guillemin and Sternberg within the context of Kahler geometry. A great deal has been written on the topic since then, often with the goal (successfully achieved) of broadening the context to symplectic geometry or beyond. But I want to return to the Kahler context and examine there the remarkable analytic proof of Tian and Zhang of the general quantization commutes with reduction theorem in symplectic geometry. The general argument simplifies considerably in the Kahler case. I hope this observation will help make clearer the power and elegance of the Tian-Zhang approach. It might also offer clues to help find analytic proofs quantization commutes with reduction theorems in other contexts. (Received August 27, 2013)