

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## LECTURE SERIES

# Quantization and Reduction

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### Abstract

In the first lecture, I will review the theory of symplectic reduction for compact Kähler manifolds and recall how it is related to GIT theory. In the second lecture, I will explain geometric prequantization and Kähler quantization, and introduce the so-called metaplectic correction and the semiclassical limit. In the final lecture, I will recall the famous result of Guillemin and Sternberg that “quantization commutes with reduction”, and then explain that in fact quantization does not commute unitarily with reduction, but that it does commute unitarily in the semiclassical limit if the metaplectic correction is included.

Lecture 1:	January 29, 2013 (Tuesday) 3:30 - 4:30pm
Lecture 2:	January 31, 2013 (Thursday) 3:30 - 4:30pm
Lecture 3:	February 5, 2013 (Tuesday) 3:30 - 4:30pm

**Room 210, Run Run Shaw Bldg., HKU**

*All are welcome*