

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research  
Department of Mathematics*

## **GEOMETRY SEMINAR**

# **J-Kepler Problems and Tube Domains**

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### **Abstract**

J-Kepler problems are vast generalizations of (the mathematical model for) the Kepler problem in physics. Tube domains are vast generalizations of the upper half plane. It was recently discovered that J-Kepler problems and (irreducible) tube domains are in one-to-one correspondence. The bridges for this correspondence are the Euclidean Jordan algebras. This correspondence owes its existence to quantum mechanics and could have been discovered in 1960's.

**Date: December 17, 2009 (Thursday)**

**Time: 4:00 - 5:00pm**

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

*All are welcome*