

## ***A VALUATIVE CRITERION OF $K$ -POLYSTABILITY***

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**Time: Wed, Oct 30th, 16:00 - 16:30**

**Venue: Room 102, SCMS**

### **Abstract:**

If the delta invariant of a Fano manifold is greater than one, then the Fano manifold is  $K$ -stable and admits a KE metric. In this case, it admits no nontrivial holomorphic vector field. For a Fano manifold with nontrivial holomorphic vector fields, we will introduce another "delta" invariant characterizing its  $K$ -polystability. Moreover, the  $g$ -weighted version of this invariant can be used to characterizing the existence of  $g$ -solitons on a Fano manifold. As an application, we will give a family of Fano threefolds admitting  $g$ -solitons for any weight function  $g$ .