**RATIONAL POINTS ON GENERIC HYPERSURFACES**

**Speaker:** Qixiao Ma  
**Shanghai Center for Mathematical Sciences**

**Time:** Thu, May 13th, 15:45 - 16:15  
**Venue:** Room 102, SCMS

**Abstract:**
Let $M_{g,n}$ be the moduli space of genus-$g$ algebraic curves with $n$-marked points, let $K_{g,n}$ be its function field. Let $C_{g,n}$ be the generic curve over $M_{g,n}$, the markings produce $n$ $K_{g,n}$-rational points on $C_{g,n}$. R. Hain showed that they are all the $K_{g,n}$ rational points of $C_{g,n}$.

We study rational points on hypersurface in projective spaces and show that similar properties hold: Let us consider the generic degree-$d$ hypersurface in $P^n$ with $r$ marked points, denoted by $X_{n,d,r}$. We show that when $d>2n$ and $r<d+1$, its rational points are exactly the marked points. We also study general closed points on the generic hypersurfaces, e.g., their monodromy groups and their spacial configurations.