

ICTS Seminar

- Title** : Smoothability of maps from singular curves to algebraic varieties
- Speaker** : Mohan Swaminathan (Stanford University, California, USA)
- Date** : Wednesday, 15th May 2024
- Time** : 03:30 PM (IST)
- Abstract** : The moduli space of holomorphic maps of some fixed degree d from smooth projective curves of genus g to a fixed smooth projective variety X is usually non-compact. However, it can be compactified by allowing maps to X from projective curves with at worst nodal singularities. The result is called the moduli space of “stable maps” and is a fundamental tool in problems concerned with counting the number of curves of some fixed genus and degree in an algebraic variety subject to some incidence or tangency conditions. Despite being an excellent compactification from the viewpoint of enumerative problems, the stable map moduli space has an unpleasant geometric feature: most singular curves in it never arise as limits of smooth ones, i.e., they are not “smoothable”. I will explain this phenomenon and then talk about some of my recent results (joint with Fatemeh Rezaee) which help us determine when a singular stable map is smoothable.
- Venue** : Emmy Noether Seminar Hall
- Zoom Link: <https://icts-res-in.zoom.us/j/95735415419?pwd=cFpYOFc0UVlsV0drVmlvY2MvenQ4QT09>
Meeting ID: 957 3541 5419
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