



ICTS Biophysics Seminar

Title : Mass lysis of bacterial predators drives the enrichment of antibiotic resistance in soil microbial communities

Speaker : Samay Pande (Indian Institute of Science, Bengaluru)

Date : Wednesday, 14th February, 2024

Time : 11:00 AM (IST)

Abstract : The effects of antibiotics on resistance evolution are well known, but the impact of microbial interactions on resistance in communities remains unclear. We show a correlation between the presence of bacterial predator *Myxococcus xanthus* in soil and the abundance of resistance. This is because the death of *M. xanthus*, an important aspect of *M. xanthus* lifecycle, releases diffusible growth inhibitory molecules in the environment. The presence of these molecules is responsible for the enrichment of resistance in natural soil communities. Our study reveals complex dynamics in resistance evolution, emphasizing the role of interspecies interactions in shaping resistance profiles.

Venue : Offline: Emmy Noether Seminar Room

Online: Please click on the below link to join the seminar

<https://icts-res-in.zoom.us/j/97616815061?pwd=NVdtRmV6d2YvSXZERCs2ZTd3bEdhdz09>

Meeting ID: 976 1681 5061

Passcode: 161716