Abstract:

In this talk, I will introduce the principles and applications of cryo electron microscopy (cryo-EM). I will begin by explaining the basics of the technique and then move on to discuss the theoretical foundations of electron microscopy and image formation. I will also explain the challenges of data collection and how they are addressed, as well as the principles of image processing and 3D reconstruction. Finally, I will conclude by discussing the various applications of cryo-EM in structural biology. I hope to provide an accessible and engaging overview of this powerful technique and its potential for interdisciplinary research and collaboration.