

ONLINE GUEST LECTURE SERIES

DATE: July 30, 2021
TIME: 16:00 PM – 17:30 PM
LOC: Join Zoom Meeting

GUEST SPEAKER:

Dr. Holger Meyerheim

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TITLE:

X-ray diffraction for the study of ultra-thin organic and inorganic films

ABSTRACT:

Since more than a century x-ray diffraction (XRD) is a well-established Nobel prize-winning tool in physics and chemistry to analyze the atomic structure of solids. Although primarily used as a bulk probe, the availability of Synchrotron radiation and -more recently- brilliant laboratory X-ray sources made it possible to study nanostructures and crystal surfaces also. In this presentation, I will first outline the principles of XRD in general and the peculiarities of its application to nanostructures and two-dimensional structures especially in view of recent achievements in laboratory XRD instrumentation. In detail, I will discuss the study of the atomic structure of organic molecular monolayers (for instance Uracile derivatives) deposited on Ag(111) and Topological interfacial systems [TaSe₂/Bi₂Se₃(0001)].