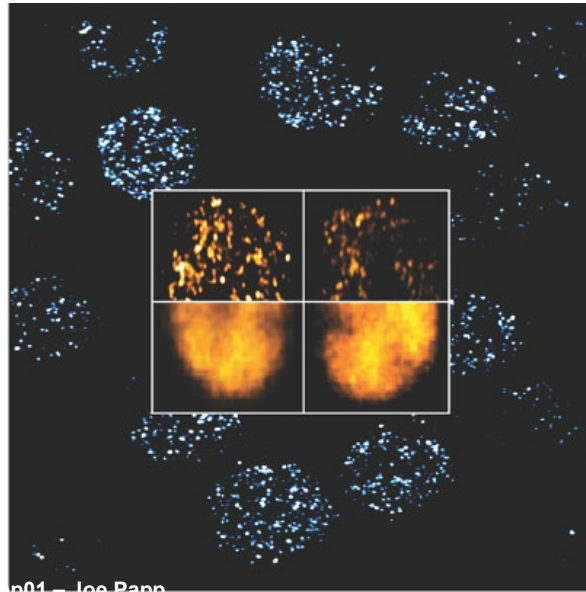




# PHYSIKALISCHES KOLLOQUIUM

AM 14. OKTOBER 2024 UM 17 UHR C.T.  
IM GROßEN HÖRSAAL



## SUPER-RESOLUTION IMAGING OF TRANSCRIPTION

IN LIVING CELLS

IBRAHIM CISSÉ

*MAX PLANCK INSTITUT FREIBURG*

We will discuss the latest efforts in our laboratory to develop highly sensitive methods of microscopy, to go directly inside living cells and uncover the behavior of single biomolecules as they affect their function in transcription. Transcription is the first step in gene expression regulation, during which genetic information on DNA is decoded into RNA transcripts. Methodologically, the so-called live cell single molecule and super-resolution techniques – that break the optical diffraction limit – are revealing with unprecedented spatial and temporal resolutions, novel emergent phenomena inside the living cells. We will discuss our recent discoveries on highly dynamic biomolecular clustering, and phase transitions *in vivo*. These discoveries are challenging the ‘textbook view’ on how our genome (DNA) is decoded in living cells.

AKTUELLE INFORMATIONEN FINDEN SIE HIER: [WWW.PHYSIK.UNI-FREIBURG.DE](http://WWW.PHYSIK.UNI-FREIBURG.DE)