2014 CPLC Summer School Instructors

Faculty Instructors

Taekjip Ha (co-director)
Physics, Illinois

Klaus Schulten (co-director)
Physics, Illinois

Alek Aksimentiev
Physics, Illinois

Yann Chemla
Physics, Illinois

Ido Golding
Baylor College of Medicine

Martin Gruebele
Chemistry, Illinois

Aaron Hoskins
Biochemistry, Wisconsin

Tom Kuhlman
Physics, Illinois

Zan Luthey-Schulten
Chemistry, Illinois

Sua Myong
Bioengineering, Illinois

Paul Selvin
Physics, Illinois

Anna Sokac
Baylor College of Medicine

Teaching Assistants

Vasudha Aggarwal
Graduate student (Taekjip Ha Lab)
Research: Study of protein-protein interactions using single-molecule pull-down

Roshni Bano
Graduate student (Yann Chemla lab)
Research: Studying chemotaxis in optically trapped E. coli

Tyler Earnest
Graduate student (Zan Luthey-Schulten lab)
Research: Whole cell modeling of ribosome biogenesis
Jingyi Fei  
Postdoc (Taekjip Ha Lab)  
Research: Study non-coding RNAs in single cells with super-resolution imaging

Ruopei Feng  
Graduate student (Martin Gruebele and Yann Chemla labs)  
Research: 3D imaging and behavior analysis of zebrafish

Kiran Girdhar  
Graduate student (Martin Gruebele and Yann Chemla labs)  
Research: To study the dimensionality and behavior of free swimming zebrafish on low dimensional space

Boon Chong Goh  
Graduate student (Klaus Schulten lab)  
Research: Computational study on the maturation process of viruses

Boyang Hua  
Graduate student (Taekjip Ha lab)  
Research: Development of single-molecule fluorescence related techniques

Hneil Kim  
Graduate student (Tom Kuhlman Lab)  
Research: Synthetic transposon propagation dynamics in E.Coli population

Alex Kreig  
Graduate student (Sua Myong Lab)  
Research: Investigation of G-Quadruplex forming DNA sequences through the use of Single Molecule FRET and AFM

Joshua Larson  
Graduate student (Aaron Hoskins Lab, University of Wisconsin-Madison)  
Research: Single molecule analysis of spliceosome assembly and activation

Ben Leslie  
Postdoc (Taekjip Ha Lab)  
Research: Functional Proteomics using Single Molecule Immunoprecipitation

Chris Maffeo  
Graduate student (Alek Aksimentiev Lab)  
Research: All-atom molecular dynamics simulations to study DNA-DNA and DNA-protein interactions
Duncan Nall  
Graduate student (Paul Selvin Lab)  
Research: Super resolution using quantum dots

Thuy Ngo  
Graduate student (Ha Lab)  
Research: Study of nucleosome dynamics and its modulation by DNA sequence and modifications using a combination of optical tweezers and single-molecule FRET

Seongjin Park  
Graduate student (Taekjip Ha and Ido Golding labs)  
Research: Imaging proteins in E.Coli bacterial cells using STORM

Tatyana Perlova  
Graduate student (Martin Gruebele and Yann Chemla Lab)  
Research: Bacterial motility and chemotaxis studied using optical tweezers and microscopy

Joe Peterson  
Graduate student (Zan Luthey-Schulten lab)  
Research: Model development and stochastic full cell simulations of methanogenic Archea

Anustup Poddar  
Graduate student (Taekjip Ha Lab)  
Research: Study of DNA-damage repair using super-resolution fluorescence microscopy

Peggy Qiu  
Graduate student (Sua Myong Lab)  
Research: Single molecule study of proteins involved in DNA recombination and repair

Leonardo Sepulveda  
Postdoc (Ido Golding Lab)  
Research: Quantifying Transcriptional Regulation in E.Coli at the Single Cell Level

Nick Sherer  
Graduate student (Tom Kuhlman Lab)  
Research: Experimental Investigation of the Distribution of Fitness Effects of Mutations for E. Coli in Microfluidic Habitats

Digvijay Singh  
Graduate student (Taekjip Ha Lab)  
Research: Single Molecule Studies of a prokaryotic immune system

Sam Skinner  
Postdoc (Ido Golding Lab)  
Research: Decision making of E. coli after infection by bacteriophage lambda
Barbara Stekas
Graduate student (Yann Chemla Lab)
Research: Single-molecule study of XPD and RPA2 unwinding a DNA hairpin using high-resolution optical trapping and FRET

Sukrit Suksombat
Graduate student (Yann Chemla Lab)
Research: Membrane Protein Studies using Optical Tweezers

Kevin Teng
Graduate student (Paul Selvin Lab)
Research: Study of inter-motor forces using FRET tension sensor

Ramreddy Tippana
Postdoc (Sua Myong Lab)
Research: Study of G-quadruplex unwinding mechanism by DNA and RNA helicases using single molecule fluorescence

Marco Tjioe
Graduate Student (Selvin Lab)
Research: Tug-of-war between kinesin and dynein

Xinlei (Shirley) Wang
Graduate Student (Sua Myong Lab)
Research: Double-Strand RNA Binding Protein Profiling

Xuefeng Wang
Postdoc (Taekjip Ha Lab)
Research: Study of cellular forces at the molecular level

Kevin Whitley
Graduate student (Yann Chemla Lab)
Research: Mechanics and dynamics of DNA hybridization

Heng Xu
Postdoc (Ido Golding Lab, Baylor University)
Research: D. Melanogaster gene transcription regulation

Zenghui Xue
Graduate student (Anna Sokac Lab, Baylor University)
Research: Molecular mechanism of actomyosin ring constriction during cellularization of Drosophila embryo

Jichuan Zhang
Graduate student (Taekjip Ha Lab)
Research: Developing imaging methods for cellular RNA and DNA