Stanford

Georgi L. Dakovski

Lead Scientist, SLAC National Accelerator Laboratory

Bio

BIO

My scientific interests have been largely focused on the intersection between ultrafast spectroscopy and materials science. I am particularly fascinated by optically triggered materials' dynamics in complex systems where unexpected collective effects occur on femtosecond timescale.

I obtained my M. Sc. degree from Sofia University, Bulgaria, studying the amplification of ultrashort laser pulses. During my graduate work in Case Western Reserve University my research shifted to interrogating semiconductor quantum dots with the help of time-resolved terahertz and transient absorption spectroscopy. In my following postdoctoral appointment at Los Alamos National Laboratory I developed a time-resolved photoelectron spectroscopy instrument which we applied to track dynamics in heavy fermions, cuprates and 2D materials. In my first ~5 years at the Linac Coherent Light Source I was a beamline scientist at the Soft X-ray Materials instrument, while in the last ~10 years I have been developing new beamline and instrumentation (chemRIXS, qRIXS) tailored to the exciting new capabilities offered by the high repetition rate LCLS-II.

CURRENT ROLE AT STANFORD

Since ~2016 I have been involved in the design, construction and commissioning of new instrumentation at the Linac Coherent Light Source (LCLS) at SLAC National Accelerator Laboratory, aiming at developing novel time-resolved soft x-ray scattering methods. Currently I am the Instrument Lead for the qRIXS experimental endstation, which focuses on performing resonant inelastic x-ray experiment to study ultrafast dynamics in correlated electron systems.

EDUCATION AND CERTIFICATIONS

- PhD, Case Western Reserve University , Physics (2007)
- MS, Sofia University, Bulgaria , Physics (2000)

LINKS

- chemRIXS instrument website @LCLS: https://lcls.slac.stanford.edu/instruments/neh-2-2
- qRIXS instrument website @LCLS: https://lcls.slac.stanford.edu/instruments/qRIXS
- Publications in Google Scholar: https://scholar.google.com/citations?user=fWhLpAQAAAAJ&hl=en