

Nemanja Markešević

WORK EXPERIENCE

03/02/2020 – 30/04/2022 – UNIVERSITY OF JYVÄSKYLÄ, Jyväskylä, Finland

Postdoctoral Researcher – Group: Molecular electronics and plasmonics

01/08/2018 – 31/01/2020 – UNIVERSITY OF SIEGEN, Siegen, Germany

Postdoctoral Researcher – Group: Nano-optics

04/01/2016 – 31/07/2018 – LANGEVIN INSTITUTE, ESPCI, Paris, France

Postdoctoral Researcher – Group: Optical antennas and sensing

06/06/2011 – 16/12/2015 – UNIVERSITY OF LEIDEN, Leiden, The Netherlands

Ph.D. student – Group: Quantum optics and Quantum information

SAMPLE PREPARATION TECHNIQUES

DNA self-assembly (DNA-encapsulated silver clusters, plasmonic nanoantennas, DNA origami)

Clean-room sample preparation (Reactive Ion Etching, Physical and Chemical Vapor Deposition, E-beam evaporation, spincoating, surface functionalization, Atomic Layer Deposition)

Gel electrophoresis, centrifugation, functionalization of nanoparticles

CHARACTERIZATION TECHNIQUES

Fluorescence and Darkfield Microscopy

Single-molecule spectroscopy and polarization measurements at cryogenic temperatures

Time-resolved measurements: Fluorescence Correlation Spectroscopy and Lifetime Imaging

Fluorimetry, UV-vis spectrometry

Reflection measurements on the goniometric (Kretschmann-like) setup

Dynamic light scattering

Ellipsometry

Atomic Force Microscopy

MATERIALS

DNA (hairpins, tubes, origami), fluorescent silver clusters, organic dyes and proteins, fluorescent beads, charge-transfer complex, SiO₂, gold and silver nanoparticles and thin films, aluminum, reducing and oxidizing agents, ZnO, polymer matrices for immobilization, biotin-neutravidin, nanocavity, Fabry-Pérot cavity

OTHER DUTIES

Optical set-up design and mounting, development of data analysis software

Teaching duties (Signal and noise processing, Second Harmonic Generation, lecturer for Bionanophotonics course - shared with prof. Mario Agio)

Supervision of bachelor, master and Ph.D. students

Oral and poster presentations at international conferences

EDUCATION

06/06/2011 – 16/12/2015 – Ph.D. – University of Leiden

01/10/2004 – 27/12/2010 – Graduate Physicist – University of Belgrade

PUBLICATION LIST

<https://scholar.google.com/citations?user=j-r11OYAAAAJ&hl=en>

LANGUAGES

Mother tongue: Serbian

English C1, French B2, German B1

DIGITAL SKILLS

Python, OriginPro, Microsoft Office, Latex

PERSONAL CHARACTERISTICS

Reliable, Responsible, Creative, Good listener and communicator

HOBBIES AND INTERESTS

Travelling, reading, languages, European history and culture, wine