









DIPARTIMENTO DI SCIENZE E INGEGNERIA DELLA MATERIA, DELL'AMBIENTE ED URBANISTICA

SAVE THE DATE! SEMINAR PROF. ANETA DROF. ANETA LEWELOUICE University of Gdansk, Poland

Lecture: Molecular spectroscopy in forensic science

Professor **Aneta Lewkowicz** holds an MSc in Chemistry from the Jagiellonian University, an engineering degree from the Energy and Fuels Faculty at AGH University of Science and Technology in Kraków, as well as a PhD and post-doctoral degree in Physics Sciences from the University of Gdańsk. Leading a dynamic, interdisciplinary team, she works alongside:

Together her reseach team (Martyna Czarnomska, Emilia Gruszczyńska) they bridge science and justice by conducting cutting-edge research on molecular design, focusing on electron excitation energy and concentration effects in fluorescent matrices. Their work also pioneers innovative techniques for visualizing and analyzing dactyloscopic and DNA traces through the lens of molecular physics.

As dedicated educators at the University of Gdańsk, the team teaches *Criminology* and *Forensic Science* at the Faculty of Law and Administration, *Spectroscopy of Biological Systems,* and *Physical Methods in Forensic Science* at the Faculty of Mathematics, Physics and Computer Science.

A key achievement is their Polish Patent Office patent (PAT. 246269) for a new fingerprint visualization method on absorbent surfaces like paper, enhancing forensic detection. Developed by Professor Lewkowicz, it ensures safe, precise evidence recovery, aiding investigations. He also led the creation of the Forensic Traces Disclosure Laboratory, a top facility combining physics, chemistry, and biology, established with the Faculty of Law and Administration and the Faculty of Mathematics, Physics, and Computer Science. This lab advances trace evidence research. Their ongoing work improves forensic science and supports forensic technicians and experts by developing sensitive detection tools, helping law enforcement solve crimes more accurately.

FACOLTÀ DI INGEGNERIA Via Brecce Bianche 12 60131 Ancona - Italia www.univpm.it SEGRETERIA AMMINISTRATIVA tel. +39 0712204710 fax +39 0712204729 e-mail: dip.simau@univpm.it

