

Curriculum Vitae

TODOROV Yanko (14/03/1978)

Director of Research CNRS (DR-CNRS)

Physics and Materials Laboratory (LPEM), UMR 8213

École supérieure de physique et de chimie industrielles de la Ville de Paris (ESPCI)

10, rue Vauquelin 75231 Paris Cedex 05 France

- **SUMMARY OF TRACK RECORD**

- ~90 articles published in peer-reviewed journals (Including:
1 Nature, 2 Nature Communications, 3 Nano Letters, 1 Physical Review, 6 Physical Review Letters, 14 Applied Physics Letters ...)
- 26 invited oral talks in international conferences
- 3 patents

- **HIGHLIGHTS**

June 2020: Defence of Habilitation à Diriger les Recherches: “Exploring light-matter interaction at the nanoscale with infrared photons”

September 2019: ERC-COG-2019 project “UNIQUE” (total budget of 1,550 M€). September 2020 – September 2026

- **POSITION(S)**

2024 – present : CNRS Researcher DR at Laboratoire de Physique et d’Étude des Matériaux (UMR8213)/ESPCI

2019 –2024 CNRS Researcher CR (Chargé de Recherche)
Laboratoire de Physique de l’École Normale Supérieure, Paris/France (UMR 8023 with CNRS : National Center for Scientific Research)

- **PREVIOUS POSITIONS**

2009 –2018 CNRS Researcher CR (Chargé de Recherche)
Laboratoire de Matériaux et Phénomènes Quantiques, University Paris -Diderot / Paris/France (UMR 7162 with CNRS : National Center for Scientific Research)

2007 – 2009 Post-doctoral Research Associate
Laboratoire de Matériaux et Phénomènes Quantiques, University Paris -Diderot / Paris/France

2006 – 2007 Temporary Lecturer and Research Assistant
Laboratoire de Matériaux et Phénomènes Quantiques, University Paris -Diderot / Paris/France

- **ADMINISTRATION**

Since march 2025: Member at the Laboratory Council of LPEM

September 2021-December 2024: Manager of research axis “Quantum Material and Devices” at LPENS, Member of the Co-direction committee of LPENS, Invited member at the Laboratory Council of LPENS

September 2021-2024: Member of the Technical Council for the Clean room facility at LPENS

- **EDUCATION**

2002 – 2006 PhD in Physics, Laboratory of Photonics and Nanostructures/University Paris VI/ France
Prof. Izo Abram (PhD supervisor)

1999-2002 Master (Quantum Physics), and Bachelor’s Degree at Ecole Normale Supérieure (Paris)

- **SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS**

-Supervision of Bachelor and Masters students (1 to 2 students per year)

-Participant in the Thesis Supervision committee (2-3 per year)

-Jury member of PhD defence (4 times, including one PhD defence at IHP, Warsaw, Poland)

2010 – 2025: Direction and supervision/co-supervision of 6 PhD students

2011-2025: Supervision of 12 postdoctoral researchers

- **TEACHING ACTIVITIES**

2022 – present Main lecture « Quantum Mechanics » for the PSL Master on Quantum Technologies

2022 – 2021 Interrogateur pour le concours d'entrée à l'Ecole Normale Supérieure, filière PC/PSI

2019 Lecturer for the Summer School of the IRMMW-THz 2019 conference (Lille, France)

2016 – 2019 Part-time lecturer – Electromagnetics, Ecole Supérieure de Physique et Chimie Industrielles (ESPCI Paris Tech), Paris, France

2013 – 2016 Part-time lecturer – Master of Quantum Devices, University Paris -Diderot / Paris/France

2013 – 2015 Part-time lecturer – Electricity, Magnetostatics, Thermodynamics, Engineering School Denis -Diderot (EIDD)/ Paris/France

2006 - 2007 Temporary Lecturer and Research Assistant, University Paris -Diderot / Paris/France

2003 – 2006 Teaching assistant, University Paris VI/Paris / France

International advanced schools

May 2015: “Quantization of EM field in dielectrics” (4h course), SiQuero network, University of Trento, Italy

- **ORGANISATION OF SCIENTIFIC MEETINGS**

2022 International Workshop on Ultra-strong coupling regime 2022, Oriahovitza, Bulgaria (chief organizer)

2019 IRMMW-THz 2019, Paris, France (member of the organizing committee)

2019 Workshop GDR NanoTeraMIR, Saint-Raphaël, France (co-organizer)

2016 Workshop GIS DIAMON, Paris, France (organizer)

2014 Mini-colloquium “TeraHertz (THz) Physics and Applications” (co-organizer)

2010 International Quantum Cascade Lasers School & Workshop, Florence, Italy (member of the organizing committee)

- **INDUSTRIAL TRANSFERT**

-2017: Two industrial transfer projects with SATT IdF Innov (currently Erganeo) on the topic of infrared detectors.

- **DIRECTION AND PARTICIPATION IN RESEARCH PROGRAMMES:**

- **International**

- Co-Principal Investigator (French side) of French-Singapore PRCI project “TIGER, 2019 – 2023

- **European**

- Principal Investigator of ERC-COG-2019 project “UNIQUE” 2020 – 2026
- Partner of H2020-FETFLAG-2018-03 “Qombs” (5 academic and 5 industrial partners). 2018-2022
- Partner of P7-PEOPLE-2013-ITN “NOTEDEV” (8 academic partners) (2013- 2017)

- **National**

- Principal Investigator of Project ANR-16-CE24-0020 “hoUDINI”, 2016 – 2020,
- Participant in 5 ANR projects

- **Regional**

- Coordinator of DIM-Sirteq project, “CIEL”, 2019-2019
- Coordinator of Labex SEAM Project “Capture”, 2013-2015