

LIPPIN PAULY

DOCTORAL STUDENT AT UNIVERSITÀ
DEGLI STUDI DI TORINO
TURIN, ITALY



BORN

INDIA

CONTACT

Address:

Torino, Cap-10141, Italy

Email: lipzpauly@gmail.com

RESEARCH INTERESTS

- Urban microclimate
- Urban parameterization
- Weather research and forecast
- Computational Fluid Dynamics
- Aerodynamics
- Artificial Intelligence

LANGUAGE QUALIFICATION

English: IELTS

Overall Band Score: 7

CEFR Level: C1.

SOFTWARE SKILLS

Modeling:

**AutoCAD, SketchUp,
Solidworks, Google Earth**

Programming & Data Analysis:

EXPERT | WRF, Python, Fortran
77/90, QGIS, MATLAB, FLUENT,
OpenFoam, ncview, wrf-python

INTERMEDIATE | R programming,
ArcGIS, NCL, Star-CCM+

Technical Writing:

EXPERT | Latex, Overleaf, MS
Office

ABOUT ME

A dynamic, innovative, performance driven and highly motivated person with experience in advanced fluid dynamics, mathematics, and numerical modeling, an excellent problem solver with effective management and leadership qualities, seeking a research position in a reputed organization to utilize my strong technical skills and professional experience.

WORK EXPERIENCE

Doctoral Researcher

Nov 21st, 2021 – Present | Dipartimento di Scienze e Innovazione Tecnologica (DiSIT), University of Piemonte Orientale, Italy

My Ph.D. research is in the application of weather research and forecast model to analyze the urban microclimate to tackle the challenges of urban heat island in the city of Turin. It is carried out here under the supervision of Prof. Enrico Ferrero, scientific coordinator of Climate physics and environmental sustainability.

Specializing Masters Project

Dec 8th, 2019 – Oct 30 2020 | Space Exploration & Development Systems, Politecnico di Torino, Italy

In the framework of the "Titan horizon exploration from a Moon installed shelter (THEMIS)" mission, I worked as a researcher to study on Titan's atmospheric science.

Research Fellow

Aug 16th, 2018 – Nov 30 2019 | COMPANY: Naval Science & Technological Laboratory, Ministry of Defence, Govt of India

My task includes pressure and temperature response of pneumatic systems, flow-field numerical simulation of underwater torpedo launches.

Research Assistant

Aug 14th, 2017 – Aug 14 2018 | COMPANY: Defence Research & Development Laboratory, Ministry of Defence, Govt of India

I worked at the Advanced Naval System Programme under DRDL and dealt with the design and flight analysis of submarine-launched ballistic missiles.

Assistant Professor.

Jul 7th, 2015 – Jul 28 2017 | COMPANY: Jyothi Engineering College (AICTE approved, and NBA and NAAC accredited)

Handled Subjects: Thermodynamics, Fluid Mechanics, Heat Transfer

EDUCATION

Doctor of Philosophy (Ph.D.)

in "sustainable development and climate change" (SUSTNET) **University of Turin**, Italy | **November 2021 (Present)**

Dissertation: **Coupled mesoscale-microscale analysis for the mitigation of urban heat islands**

Operating Systems:

EXPERT | **UNIX, Linux, Windows, virtual machines and cloud computing**

AWARDS

Tromp Foundation Award for Young Scientist

Awarded By: European Meteorological Society

Junior Research Fellowship

Awarded By: Defence Research & Development Organisation, Ministry of Defence, Govt of India.

SEEDS Scholarship

Awarded By: Mechanical and Aerospace Department, Politecnico Di Torino, Turin, Italy

Ph.D. Fellowship

Awarded By: Awarded by Dept. of science and technological innovation, University of Piemonte Orientale, Vercelli, Italy

REFERENCES

ENRICO FERRERO

Full Professor & Scientific coordinator, Climate systems and Environmental sustainability, University of Piemonte Orientale Vercelli, Italy
e: enrico.ferrero@uniupo.it

Dr. S. KARUNANIDHI

Outstanding Scientist/Sc "H"
Director Control Systems Laboratory
Research Centre Imarat (RCI)
DRDO, Ministry of Defence, Govt of India, Hyderabad-500069
e: karunanidhi.s@rcilab.in

The 2nd level Specializing Master

in "SpacE Exploration and Development Systems" (SEEDS) **Politecnico di Torino**, Italy | **October 2020**

Dissertation: Titan horizon exploration from a Moon installed shelter (THEMIS)

Master of Engineering & Technology

in "Advanced fluid mechanics and machinery" | CGPA:8.37, First class with distinction, **University of Calicut**, India | **June 2015**,

Dissertation: *Numerical Simulation of Solar Hybrid Photovoltaic Thermal Air Collector*

Bachelor of Engineering & Technology

in "Mechanical Engineering," | First class, **University of Kerala**, India | **June 2012**,

Dissertation: *Study of Heat Transfer Enhancement Techniques on Concentric Tube Heat Exchanger* Other Experience

PUBLICATIONS/CONFERENCE PROCEEDINGS

>>Lippin Pauly et.al "Numerical Investigation of Thermal Patterns and Local Wind Circulations to Characterize Urban Heat Island During a Heatwave in Turin ". Available at SSRN: <http://dx.doi.org/10.2139/ssrn.4530212> (Preprint)

>>Lippin Pauly et.al "Numerical Simulation for Solar Hybrid Photovoltaic Thermal Air Collector", Procedia Technology, Volume 24, 2016, Pages 513-522, ISSN 2212-0173.

>>Lippin Pauly et.al 2016 "Analysis of Flow over a Cylinder fitted with Helical Strakes" Procedia Technology, July, vol `24 pp 452-460.

>>Lippin Pauly et.al, 2015, "Numerical Analysis of Heat Exchanger Effectiveness Using Porous Medium" International Journal of Scientific Engineering & Research, April, vol 5, Issue7

>>Lippin Pauly et.al "Titan as a potential deep space base: environmental analysis and resources exploitation proposal" A7.2: Science Goals and Drivers for Future Exoplanet, Space Astronomy and Space Physics, international astronomical congress (IAC) OCT 2020

ACCEPTED CONFERENCES 2023

>>Lippin Pauly et.al, 2023, "**Microclimate investigation to study the behavior of urban heat islands in the city of Turin**" accepted in 9th Edition of the International Conference on Meteorology and Climatology of the Mediterranean (MetMed) Genoa (Italy) on May 22-24, 2023

>>Lippin Pauly et.al, 2023, "**Evaluating the Impact of Urbanization on Thermal Comfort in Turin: A Numerical Simulation Study**" accepted in 2023 EMS Annual Meeting of the European Meteorological Society, Bratislava (Slovakia) on 3-8 September 2023

CERTIFICATIONS

>>Successfully completed a course on "**Cities and Climate Change**" and received the completion certificate from UN:CC Learn - March 2022

>>Accepted for and participated in Summer School on **Parallel Computing**, Organised by SCAI - SuperComputing Applications and Innovation, CINECA, Italy - December 2021.

>>Successfully completed and received a passing grade in "**Environmental SDG Indicators**", a course of study offered by UNITAR, an online learning initiative of United Nations - September 2021

>>Successfully completed and received a passing grade in "**Climate Change: Science and its Global Impact**", a course of study offered by SDGAcademyX, an online learning initiative of SDG Academy - June 2021