

Supakorn (Nikko) Juengsophonvitavas

49 Watson Avenue, St Andrews, Fife, KY16 8JE, United Kingdom

sj91@st-andrews.ac.uk | [Website](#) | [LinkedIn](#) | +44 7312 639 869

My research interest centres on high-energy astrophysical transients and active galactic nuclei (AGN) variability, using advanced data analysis, machine learning, and multiwavelength observational techniques to explore the nature of transient phenomena and AGN in large-scale astronomical surveys.

Education

University of St Andrews, UK | Astrophysics Integrated Masters (Hons) September 2020 - Present

On track to receive *Upper Second Class*

Final Year Project: “Investigating AGN variability in the LSST”

Relevant Modules: *Master Level:* Advanced Data Analysis, Monte Carlo Radiation Transport Techniques, Knowledge Discovery & Datamining, Cosmology, Contemporary Astronomy; *Undergraduate Level:* Computational Astrophysics & Physics, Data Handling, Object Oriented Programming, Extragalactic Astronomy, Observational Astrophysics, Physics of Nebulae and Stars 1&2

Research Experience

Synthetic Optic Group, University of St Andrews

June - August 2024

Research Intern - Supervisor: Prof Andrea Di Falco

- Developed a procedure to 3D print microfluidic devices on glass and treated chips on DLP printers
- Designed test prints for micron-scale structures to fine-tune print parameters for different resins
- Taught and advised 4 group members on operating and maintaining SLS and DLP printers

University of St Andrews Observatory

May - June 2024

Research Intern - Supervisor: Dr Alexander Scholz

- Perform precise polar and star alignment on the robotic telescope to achieve sub-1 minute tracking
- Update and integrate control software to the latest operating versions
- Perform fine-tune adjustments to the finderscope, focuser, and camera alignment

Laidlaw Scholarship Research - Galaxies Group, University of St Andrews

May - December 2022

Scholar/Research Intern - Supervisor: Dr Juan V. Hernández Santisteban

- Research title: Identifying active galactic nuclei for the SPHEREx observatory
- Developed a pipeline to study and analyse ~2.6 million sources from archival sky surveys
- Results accepted by the Las Cumbres Observatory for further studies in preparation for SPHEREx

Grants and Awards

Laidlaw Foundation Research and Leadership Scholarship (£7700)

February 2022 | Awarded to undergraduate students to undertake a research and leadership project

University of St Andrews Dean's List

June 2021 | Awarded to Students with a mean grade over 16.5 on the university's non-linear scale

June 2022 | Awarded to Students with a mean grade over 16.5 on the university's non-linear scale

Work Experience & Courses

Phupha Tutor - Online

July 2021 - Present

Private Tutor

- Tutored over 17 students in Europe, Asia, and Oceania regions
- Curriculum taught: Pre-IGCSE Maths and Physics, IGCSE Maths and Physics, A-Levels Maths and Physics, BMAT Physics, NCEA

Coding Assistant Instructor

- Designing and teaching coding and Arduino to over 30 middle and high school students
- Implementing Firmata to streamline teaching material for coding and microcontrollers
- Supervise students on final projects in coding and 3D modelling

National Astronomical Research Institution of Thailand (NARIT)**July 2020***Student Attendee - Advance Engineering Workshop*

- Studied the available technology for the development of the engineering projects conducted by NARIT
- Observed the technology and construction of the Thai National Radio Telescope
- Visited the production plant of the mirror coating machines designed for the Cherenkov Telescope Array

Astronomy Data Handling Python Course - Newton Fund Program/NARIT**October 2019***Attendee*

- Attended lectures on astrophysical concepts ranging from planetary orbits to stellar evolution
- Focused on Python coding for data visualisation and handling astronomical data
- Created stellar structure simulations using astronomical data queried from ASTROHUB

National Astronomical Research Institution of Thailand**June 2018***Intern*

- Trained in basic astronomical observation and how to set up different types of telescopes
- Trained on SalsaJ software and wrote a report on finding the distance to the M100 Galaxy
- Shadowed Astrophysicists and gained insight into the research across different fields

LEADERSHIP ROLES**Co-organiser - Physics and Astronomical Society's annual ball**

September 2024 - Present| Organise and sort the logistics of the event

Lead Organiser - St Andrews Interdisciplinary Science Conference

March 2023 - Present| Organise and chair meetings and act as the primary point of contact

President - University of St Andrews Astronomical Society

March 2023 - March 2024| Chair committee meetings and represent the society

School Ambassador - University of St Andrews, School of Physics and Astronomy

May 2021 - Present | Represent the school at official events.

Senior Observing Director - University of St Andrews Astronomical Society

May 2022 - March 2023| Operate the telescopes during observation sessions for the society

Event Convenor - University of St Andrews Astronomical Society

May 2021 - May 2022| Organise and run events for the society

Event Officer - University of St Andrews Thai Society

May 2021 - May 2022| Assists the Event Director in organising and running events

Freshers Representative- University of St Andrews Astronomical Society

September 2020 - May 2021| Promote and inform Freshers students of the society

First Year Astronomical Student Representative - University of St Andrews

September 2020 - December 2020 | Represent the students in the Astronomy modules

Professional Engagement

Professional Membership: Fellow of the Royal Astronomical Society, Associate Member of the Institute of Physics

Conference Attended: National Astronomy Meeting 2022

Invited Talk: Running an Academic Conference (IOP Forum of University Societies Event 2024)

SkillsComputer Skills: **Basic:** Java, OOP; **Advanced:** Data Handling, Python, SQL/ADQL, LaTeX, Fortran, TOPCATLanguage: **Fluent:** English, Thai; **Beginner:** Japanese

References

Dr Juan V. Hernández Santisteban

Lecturer in Astrophysics
School of Physics and Astronomy
University of St Andrews
North Haugh, St Andrews
KY16 9SS, UK
+44 (0)1334 46 3053
jvhs1@st-andrews.ac.uk

Prof Andrea Di Falco

Director of Impact
Professor in Biophotonics
School of Physics and Astronomy
University of St Andrews
North Haugh, St Andrews
KY16 9SS, UK
+44 (0)1334 46 3108
adf10@st-andrews.ac.uk

Dr Alexander Scholz

Director of the University Observatory
Reader in Astrophysics
School of Physics and Astronomy
University of St Andrews
North Haugh, St Andrews
KY16 9SS, UK
+44 (0)1334 46 1668
as110@st-andrews.ac.uk