

Joaquín Hernández-Yévenes

ASTROPHYSICIST · DATA SCIENTIST

Universidad de Concepción (UdeC), Concepción, CHL

📧 joacoh.github.io

Education

Universidad de Concepción

Concepción, Chile

MASTER DEGREE (MSc, ASTRONOMY & ASTROPHYSICS)

2022 – today

- Thesis title: **WISE2MBH: A simple algorithm for morphology, bulge fraction and black hole mass estimation using WISE catalogs**
- Supervisor: DR. NEIL NAGAR

Universidad de Concepción

Concepción, Chile

BACHELOR AND PROFESSIONAL (CHL) DEGREE IN ASTRONOMY

2018 – 2023

Research Internships

Discussion and refinement of the WISE2MBH algorithm

BHL at Harvard, Massachusetts, USA

WORKGROUP: DOMINIC PESCE, ANGELO RICARTE, YURI KOVALEV AND OTHERS

Mar. – Apr. 2023

- Late stage development of an algorithm that uses WISE photometric data to estimate supermassive black hole masses
- Explore uses for ngEHT, MOJAVE, ALMA and many other projects
- Discussion over the overall statistics of input/output samples

Assistanships

Astronomía Extragaláctica

UdeC, Concepción, Chile

PROFESSOR: DR. RICARDO DEMARCO

Semester II. 2023

Radioastronomía

UdeC, Concepción, Chile

PROFESSOR: DR. NEIL NAGAR

Semester II. 2023

Peer review publications

First-author publications:

- 1 WISE2MBH: A SIMPLE ALGORITHM FOR MORPHOLOGY, BULGE FRACTION AND BLACK HOLE MASS ESTIMATION USING WISE CATALOGS 2023
Hernández-Yévenes J., Nagar N., Arratia V. & Jarrett T.H. in prep.

N-author publications:

- 1 EVENT HORIZON AND ENVIRONS (ETHER): A CURATED DATABASE FOR EHT AND NGEHT TARGETS AND SCIENCE 2023
Ramakrishnan V., Nagar N., Arratia V., Hernández-Yévenes J., Pesce D.W., Nair D.G., Bandyopadhyay B., Medina-Porcile C., Krichbaum T.P., Doeleman S., Ricarte A., Fish V.L., Blackburn L., Falcke H., Bower G., & Natarajan P. Galaxies

Successful PI observing proposals

- 1 TOWARDS RESOLVING ORBITING BINARY SMBH, PLUS SHADOWS, JETS, AND ACCRETION FLOWS OF SINGLE SMBH: ACA FLUXES 2023
Hernández-Yévenes J., Arevalo P., Arratia V., Bower G., Cuadra J., Gurwell M., Krichbaum T., Leigh N., Lira P., Nagar N., Nair D., Ramakrishnan V., Rao R., Reeves R. & Sasikumar S. ALMA Cycle 10

Outreach

2022 **La nueva generación del Telescopio Horizonte de Eventos (ngEHT) y Chile**

Viernes Estelares de Astronomía, UdeC

Leadership & Community Service

SciCat: Grupo de apoyo creado por y para estudiantes

FOUNDER, CONTENT CREATOR AND COMMUNITY MANAGER

[Instagram / YouTube](#)

2020-2022

Certificates

2023	Certification in Machine Learning with Python , freeCodeCamp	Certificate
2022	Certification in Data Analysis with Python , freeCodeCamp	Certificate
2022	Certification in Scientific Computing with Python , freeCodeCamp	Certificate
2022	Certificado en Cloud Computing , Google & Esc. de Org. Industrial	
2021	Escuela de Física del Magister en Cs. Físicas , Universidad del Bío Bío (UBB)	
2019	Curso de Inglés Avanzado , SNBP & BiblioRedes	

Skills

Programming	Python, T _E X, Bash
Data analysis	NumPy, Pandas, Matplotlib, Seaborn, SciPy, scikit-learn, Tensorflow
Photography	Gimp, Inkscape
Video	Olive

Other

Citizenship	Chilean
Birth year	1999 (23 years old)
Languages	Spanish (native), English