

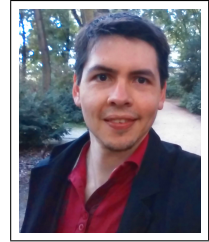
# Diego Herbin Stalder Díaz

## *PHD in Applied Computing,*

Languages: Spanish, Guarani, Portuguese, English and French  
Engineering Faculty Researcher, Married, Barrio San Isidro Ybera,  
San Lorenzo, Paraguay

+55 12 961840205

✉ [dstalder@ing.una.py](mailto:dstalder@ing.una.py)



## Education

- 2013-2017 **Phd in Applied Computing**, *National Institute for Space Research (INPE), Brazil*, Bayesian Surface Photometry Analysis, Develop of a new tool called PyPiGALPHAT (Python Pipelining GALPHAT) to access and analyze efficiently, samples of galaxies images (with thousand objects) in a CPU Cluster.  
INPE, in a colaboration with UMass, Brazil-USA
- 2016 **Sandwich Research Scholarship**, *Institut Astrophysique de Paris, France*, Modeling Environmental effects on galaxies probed with MAGGIE with Fortran90 and Python, Improving and applying MAGGIE to large datasets. MAGGIE is a prior- and halo-based, probabilistic, abundance matching (AM) grouping algorithm for doubly complete subsamples (in distance and luminosity) of flux-limited samples.  
IAP, France
- 2011-2013 **Master in Applied Computing**, *National Institute for Space Research (INPE), Brazil*.
- 2004-2010 **Bachelor Degree**, *Electronic Engineering -National University of Asunción, Paraguay*.

## Recent Projects

- 2021 **Improvement and expansion of the laboratory for monitoring the geomagnetic anomaly and space weather**, *Engineering Faculty-FIUNA- National University of Asunción, Paraguay*, Research Grant for Small Projects.
- 2020 **Implementation Validation Laboratory for Testing Medical Devices National**, *Engineering Faculty-FIUNA- National University of Asunción, Paraguay*, CONACYT Gran PINV20-352.  
**Youtube talk**

## Recent Work Experience

- 2019-Recent **Full Time Researcher**, *Engineering Faculty-FIUNA- National University of Asunción, Paraguay*, Research Interests: Space Weather, Earth Magnetic Field, Ionospheric, Instrumentation, Embedded System, Data Acquisition Research, Scientific Computing, Data Science.  
<http://www.ing.una.py/>
- 2018-2019 **Research Coordinator**, *Paraguay Space Agency, Paraguay*, Research Interests: Basic Space Engineering.  
<http://www.aep.gov.py/>
- 2017-2019 **Part Time Researcher, thesis advisor and lecturer**, *NIDTEC-FPUNA- National University of Asunción, Paraguay*, Research Interests: Scientific Computing, Data Science, Galaxy Morphology, Face Recognition with Deep Learning.  
<http://www.cc.pol.una.py/>

- 2017–Present **Teaching C Programing and Physics**, *Engineering School-National University of Asunción(FIUNA), Paraguay.*  
<http://www.ing.una.py/>
- 2013–2018 **Bayesian Surface Photometry Analysis**, *Develop of a new tool called PyPiGALPHAT (Python Pipelining GALPHAT) to access and analyze efficiently, samples of galaxies images (with thousand objects) in a CPU Cluster, INPE, in a colaboration with UMass, Brazil-USA.*
- 2016 **Modeling Environmental effects on galaxies probed with MAGGIE with Fortran90 and Python**, *Improving and applying MAGGIE to large datasets. MAGGIE is a prior- and halo-based, probabilistic, abundance matching (AM) grouping algorithm for doubly complete subsamples (in distance and luminosity) of flux-limited samples, IAP, France.*

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## Technical skills

**Physics** , *Space Weather, Earth Magnetic Field, Ionospheric Research.*

**Electronics** , *Instrumentation, Embedded System, Data Acquisition.*

**Machine Learning** , *classification, regression, clustering, data aumentation, neural networks, convolutional neural networks .*

**Statistical Methods** , *time series, regression models, hypothesis testing and confidence intervals, principal component analysis, feature selection and Bayesian Inference.*

**Software and Programming Languages** , *C, C++, Python(scikit-learn, numpy, scipy, pandas, tensorFlow, Keras), Weka, R, Jupyter, Fortran90, CUDA and Java.*

**Linux**, *Shells, Scripting, and Data Management, High Performance Computing .*

**Databases** , *SQL, SQLite, Hdf5, , Postgres.*