Ezequiel Alvarez

PhD in Theoretical Physics

May 1976, Argentina

ICAS, Argentina

sequi@unsam.edu.ar

About me

I am passionate about finding out how the Universe behaves Beyond the Standard Model. As most of HEP physicists, one of my major concerns is how the Dark Matter puzzle is solved. I enjoy doing research in phenomenology in High Energy Physics and trying to further understand how Nature behaves.

I am deeply involved in learning, developing and applying Bayesian Machine Learning techniques in the search for New Physics and in projects that benefit Society, at the Governments, Institutions, and private sector levels.

If I had to summarize my work, my passion, my wishes, my past, my present and my future in one word, that would be: *Motivation*.

Skills

- Leadership
- Innovation
- Management
- Scientific and funding strategy
- Computer Sciences and Development

Interests

Research: Phenomenology of high energy physics and astro-ph. I look in detail LHC, astrophysical and other relevant experiments and try to understand how Nature behaves beyond our current understanding. I am passionate in finding out what is the theory that follows to the Standard Model, what is Dark Matter, and more concretely in the next LHC milestone, the $pp \to hh$ measurement. I am also very interested in recent progress in all other fields of Science and I do my best to keep track of relevant news about this.

Science Policy: I pursue to conduct science to best serve public interests. I am involved and very interested in promoting women in science; 60% of my PhD students are women. I am interested in enhancing knowledge and intelligence in the Developing World as an added value for improving the quality of life as a whole.

Positions & Education

Since 2021	ICAS Director icas.unsam.edu.ar	International Center for Advanced Studies
Since 2006	Research Permanent Position Independent Researcher	CONICET (Argentina)
Since 2016	Professor Physics & Machine Learning	University of San Martin (Argentina)
2017-2020	Latin American Representative International Committee for Future Accelerators	ICFA (International)
2012-2012	Postdoc Stanford University	SLAC (USA)
2011-2017	Regular Associate International Centre for Theoretical Physics	ICTP (Italy)
2011-2012	Professor Physics	University of San Luis (Argentina)
2006-2014	Assistant professor Physics	University of Buenos Aires UBA (Argentina)
2001-2005	PhD in Theoretical Physics Thesis: *CP, T and CPT analyses in EPR-correlated $B^0\bar{B}^0$ decays*	Valencia University (Spain)
1997-2000	Master in Theoretical Physics Prize *First of the Class*	Institute Balseiro, Bariloche (Argentina)

Summary of Scientific Work

2000-2024	45+ international scientific publication in journals as JHEP, Physical Review, Nuclear Physics, Physics Letters, etc. Inspire (incomplete) list
2016-2024	Creator, developer of about ~ 15 Machine Learning Apps and tools
2001-2024	30 international conferences, schools, workshops, etc.
2022-2024	Invited talks in Saclay, CERN, Heidelberg, Bologna, Slovenia, Florence, Rome
2008-2019	Full formation to PhD level of Drs. E. Coluccio Leskow, J.I. Sanchez Vietto, M. Estévez, R. Sandá, M. Szewc, 10 Master Thesis advised.

Languages

English	Excellent
Spanish	Native
Italian	Excellent
French	Very good