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I completed my MSc at the University of Buenos Aires in 1998 working on the measurement of the production cross section of direct photons at the D0 experiment (Fermilab, USA). Afterwards, I worked in Sweden as a member of the Astroparticle Group of the Royal Institute of Technology studying cosmic rays. I did my PhD (2003, University of Buenos Aires) measuring the properties of quarks and gluons in high energy collisions at D0. In 2003 I became a postdoctoral Fellow at Harvard University where I worked mainly at the CDF experiment (Fermilab) on top-quark physics and detector operations. In 2008 I joined the IFAE (Institut de Física d'Altes Energies) LHC-ATLAS experiment group as an ICREA Researcher. I am currently leading the ATLAS Detector upgrade effort at IFAE. In 2012 I became an ICREA Research Professor.

Research interests

My research has been focused on high-energy experimental particle physics: understanding which are the fundamental constituents of nature and how they interact. At the Fermilab Tevatron accelerator I have performed studies of QCD and the properties of the heaviest quark, the top quark. At the LHC accelerator at CERN I conducted searches for new physics in the top sector. I have always been drawn to the challenges related to the development of the next generation of high energy physics detectors, and, in general, to instrumentation R&D. Currently I lead a coordinated project between IMB-CNM and IFAE to develop semiconductor pixel detectors for the ATLAS experiment at the LHC. As a result of this project, 3D pixel silicon sensors designed and produced at Barcelona have been included in the new innermost detector layer of ATLAS and in the tracking system of the ATLAS Forward Proton (AFP) detector. My on going work aims to develop radiation hard technologies for the high luminosity LHC era. I am also co-leading a project to produce a new generation of real time breast biopsy machines.

Selected publications

- **Grinstein S** et al. 2017, 'Module production of the one-arm AFP 3D pixel tracker', *Journal Of Instrumentation*, 12, C01086.
- Lange J, **Grinstein S** et al. 2017, 'Gain and time resolution of 45 μm thin Low Gain Avalanche Detectors before and after irradiation up to a fluence of 1015 $\text{n}_{\text{eq}}/\text{cm}^2$ ', *Journal Of Instrumentation*, 12, P05003.
- Terzo S, **Grinstein S** et al., 2017, 'Characterisation of novel prototypes of monolithic HV-CMOS pixel detectors for high energy physics experiments', *Journal Of Instrumentation*, 12, C06009.
- Cavallaro E, **Grinstein S** et al. 2017, 'Studies of irradiated AMS H35 CMOS detectors for the ATLAS tracker upgrade', *Journal Of Instrumentation*, 12, C01074.
- Vazquez Furelos D, **Grinstein S** et al. 2017, '3D sensors for the HL-LHC', *Journal Of Instrumentation*, 12, C01026.

Selected research activities

- * Principal investigator of the ATLAS-Upgrade group at IFAE (FPA, MINECO).
- * Principal investigator of the Instrumentation group at IFAE (SGR, AGAUR).
- * Co-principal investigator of the 3D Biopsy on Tomosynthesis project (RIS3CAT, ACCIO).
- * Coordinator of AIDA-2020 activities at IFAE and WP6 (HVC MOS) co-coordinator (H2020, EU).
- * Guarantor of the IFAE "Severo Ochoa" Centre of Excellence Program award (2016).
- * Supervising six PhD theses.

Talks at Conferences:

- * "A High Granularity Timing Detector for the Phase-2 Upgrade of the ATLAS Calorimeter", 11th International Conference on Position Sensitive Detectors, 3-8 September 2017, The Open University, Milton Keynes, UK.

* "Pixel Sensor Technologies for the CEPC", International Workshop on High Energy Circular Electron Positron Collider 2017, 6-8 November 2017, Beijing, China.