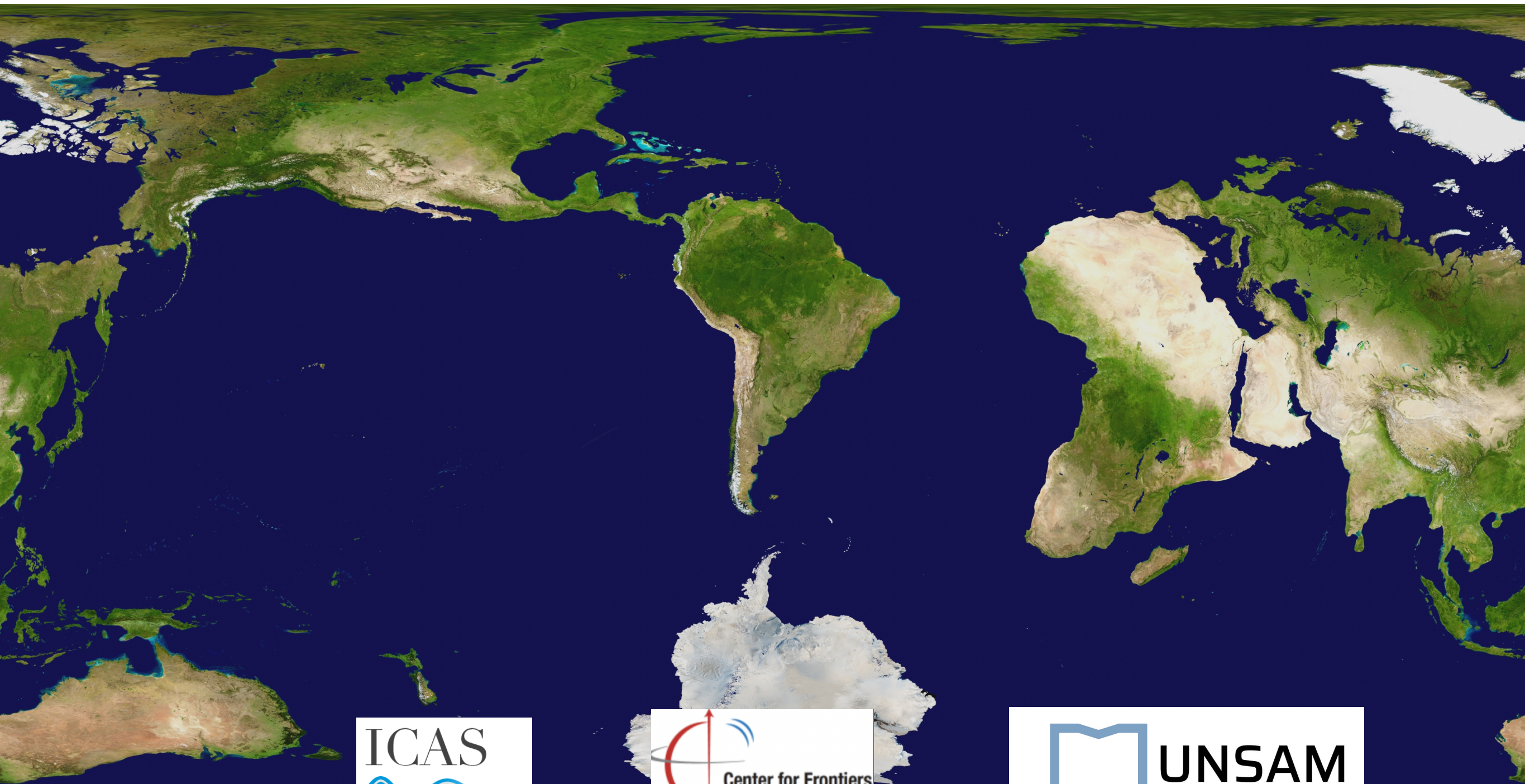


# Daniel de Florian

## ICAS - ICIFI - UNSAM

### Argentina





# Collider Physics/QCD in Argentina

- ▶ Universidad de San Martín
- ▶ Universidad de Buenos Aires
- ▶ CNEA-BA
- ▶ Universidad de La Plata
- ▶ Centro Atómico Bariloche

There is a network : **PHENO@AR** (no funding)

- ▶ Dark Matter
- ▶ SUSY
- ▶ (other) BSM
- ▶ Higgs

- ▶ p and np-QCD
- ▶ Flavour+QCD
- ▶ BMS+Flavour

Several meetings organized over the last 5 years (twice a year typically)

**ICAS: International Center for Advanced Studies**  
organization, funding, infrastructure





- The **International Center for Advanced Studies (ICAS)** was formally launched in 2015 and inaugurated on June 2016 by UNSAM
- Main goal: enhance the connection between the academic institutions in areas of basic science of Argentina and the international community
- It hosts a few permanent research groups (currently on HEP and Cond.Matter, and growing) along with a number of short-term visitors, postdocs and senior researchers in sabbatical stays.
- ICAS supports the following activities in which short-term visitors, permanent researchers and associates are expected to participate :
  - ▶ Research at the highest international standards
  - ▶ Organization of seminars, conferences, workshops and schools (open calls)

## Directorial Board

- **Director : Ezequiel Alvarez (2021- )**
- Former Director: Daniel de Florian (2016-2021)
- Former Deputy Director: Liliana Arrachea (2016-2021)

## International Board

- Marcela Carena [FermiLab, USA]
- Leticia Cugliandolo [Paris VI, France]
- Eduardo Fradkin [Urbana, USA]
- Juan Martín Maldacena [Princeton, USA]
- Fernando Rodriguez Villegas [ICTP, Italy]
- Matias Zaldarriaga [Princeton, USA]





■ 69 participants - way above our initial guess 🤗

■ 61% 🇦🇷 38% 🇧🇷 and 1% 🇨🇱

From 🇧🇷 : 50% theoreticians — 50% experimentalists

From 🇦🇷 : 75% theoreticians — 25% experimentalists

■ ATLAS, CMS and LHCb experiments represented

■ People from 5 institutions in 🇦🇷 and 11 institutions in 🇧🇷

PHENOEXP2020 ICTP-SAIFR São Paulo (with more countries) COVID..



# Research in **Argentina** covers several subjects in QCD

- ▶ perturbative QCD (high order corrections)
- ▶ QCD for Higgs
- ▶ resummation
- ▶ spin physics
- ▶ parton distributions
- ▶ fragmentation functions
- ▶ jets (EXP+TH)
- ▶ Machine Learning in QCD searches
- ▶ Hadron structure
- ▶ Flavor physics
- ▶ non-perturbative QCD
- ▶ QCD under extreme conditions
- ▶ Chiral quark model, NJL model

very relevant contributions for  
LHC  
RHIC  
EIC  
JLAB  
+... Physics

Clear network in the country + international collaborations

HP2 : High Precision for Hard Processes

biannual conference since 2004 (Zurich, Buenos Aires, Firenze)

LHCPhenonet EU ITN network 2011-2016



- ▶ ICAS already organized several QCD meetings (+spin physics) strongly related to EIC+ physics
- ▶ Natural Center in the country to centralize Network activities
- ▶ ICAS available for network meetings in Buenos Aires (all infrastructure + organization + asados!)
- ▶ Please keep network structure/bureaucracy to the minimum necessary to obtain **FUNDING to support and enhance collaborations**
- ▶ Use network to bring LHC-TH to EIC physics



