

# Agustín Matías Carulli

PHYSICIST · PHD STUDENT

2942, Arenales Apt. 3 H, Mar del Plata 7600, Buenos Aires, Argentina

☎ (+54) 9-2291-411181 | ✉ amcarulli@mdp.edu.ar

*“Do not look at stars as bright spots only - try to take in the vastness of the universe” (Maria Mitchell)*

## Career profile

### Doctoral Fellow

MAR DEL PLATA INSTITUTE OF PHYSICS (IFIMAR-CONICET)

Mar del Plata, Buenos Aires, Argentina  
Apr. 2018 - PRESENT

- Research field: High-energy astrophysics - Astrophysical neutrinos - Physics beyond the Standard Model

## Academic formation

### PhD student in Physics

UNIVERSIDAD NACIONAL DE MAR DEL PLATA (UNMDP)

Mar del Plata, Buenos Aires, Argentina  
Apr. 2018 - PRESENT

- Got a CONICET scholarship for the PhD
- Work plan thesis title: “Astrophysical Neutrinos: Production and New Physics Effects”

### Degree in Physics

UNIVERSIDAD NACIONAL DE MAR DEL PLATA (UNMDP)

Mar del Plata, Buenos Aires, Argentina  
Mar. 2018

- Thesis title: “The SS433 microquasar as a possible source of high energy neutrinos”

## Research

### International proceedings

#### Published articles

“ON THE POSSIBILITIES OF HIGH-ENERGY NEUTRINO PRODUCTION IN THE JETS OF MICROQUASAR SS433 IN LIGHT OF NEW OBSERVATIONAL DATA”

Feb. 2019

- Authors: Reynoso, Matías M. & Carulli, Agustín M.
- Journal: Astroparticle Physics (Volume 109, Feb 2019, 25-32)

### National proceedings

#### Published articles

“NEUTRINO PRODUCTION IN POPULATION III MICROQUASARS”

2019

- Authors: Carulli, Agustín M.; Reynoso, Matías M.; Romero, Gustavo E.
- Boletín de la Asociación Argentina de Astronomía Vol. 61 A

## Seminars, schools and conferences

### 62° National Meeting AAA

ATTENDED - POSTER PRESENTED: “NEUTRINO PRODUCTION IN STARBURST GALAXIES”

Virtual Edition, Argentina  
13-16 Oct. 2020

### American Physical Society Virtual April Meeting

ATTENDED

Virtual Edition, United States  
18-21 Apr. 2020

### School on High Energy Astrophysics

ATTENDED - POSTER PRESENTED: “HIGH-ENERGY NEUTRINOS FROM POPULATION III MICROQUASARS”

São Paulo, Brasil

5-16 Aug. 2019

### The 15th International Conference On The Dark Side Of The Universe

POSTER PRESENTED: “HIGH-ENERGY NEUTRINOS FROM POPULATION III MICROQUASARS”

CABA, Argentina  
15-19 Jul. 2019

### 10th CERN Latin-American School of High-Energy Physics (CLASHEP2019)

ATTENDED

Villa General Belgrano, Córdoba, Argentina  
13-26 Mar. 2019

### Second Binational Meeting AAA-SOCHIAS

DISSERTATION GIVEN TITLE: “NEUTRINO PRODUCTION IN POPULATION III MICROQUASARS”

La Serena, Chile  
7-12 Oct. 2018

### 102° Reunión de la Asociación Física Argentina

POSTER PRESENTED: “THE SS433 MICROQUASAR AS A POSSIBLE SOURCE OF NEUTRINOS”

La Plata, Buenos Aires, Argentina  
26-29 Sep. 2017

## Teaching experience

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**Teacher assistant. Course: Physics I**  
UNIVERSIDAD NACIONAL DE MAR DEL PLATA

*Mar del Plata, Buenos Aires, Argentina*  
Jul. 2018 - Mar. 2019

**Secondary School teacher of physics**  
CENTRO EDUCATIVO DIONISIA

*Otamendi, Buenos Aires, Argentina*  
Jun. 2015 - Feb. 2019

**Undergraduate Teacher Assistant obtained by public tender. Course: Physics III**  
UNIVERSIDAD NACIONAL DE MAR DEL PLATA

*Mar del Plata, Buenos Aires, Argentina*  
Apr. 2016 - Mar. 2017

**Undergraduate Teacher Assistant obtained by public tender. Course: Physics I**  
UNIVERSIDAD NACIONAL DE MAR DEL PLATA

*Mar del Plata, Buenos Aires, Argentina*  
Apr. 2015 - Mar. 2016

**Undergraduate Teacher Assistant obtained by public tender. Course: Physics I**  
UNIVERSIDAD NACIONAL DE MAR DEL PLATA

*Mar del Plata, Buenos Aires, Argentina*  
Apr. 2014 - Mar. 2015

## Volunteering and University Extension

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### Extension project

MEMBER OF THE EXTENSION PROJECT "EXPERIMENTAL PRACTICES, PRESENT! CO-CONSTRUCT, SHARE, AND ACT EXPERIMENTAL PRACTICES AT/WITH SECONDARY SCHOOLS"

*PRESENT*

### Cycle of astronomy talks organizer

ORGANIZER OF THE CYCLE OF TALKS "UN PEDACITO DE CIELO PARA MAR DEL PLATA"

*Jan. 2020 - Feb. 2020*

### Extension activity

PARTICIPANT AT THE EXTENSION ACTIVITY "WORKSHOP ON IMPLEMENTATION OF EXPERIMENTAL PRACTICES AT SECONDARY SCHOOLS"

*Ago. 2019 - Nov. 2019*

### University extension scholarship

UNIVERSITY EXTENSION SCHOLARSHIP FOR THE PROGRAMME OF SOCIAL COMMUNITARY PRACTICES

*Apr. 2016 - Mar. 2017*

### Volunteering in educational support

TUTORING SECONDARY SCHOOL STUDENTS IN PHYSICS AND MATHEMATICS, IN THE FRAME OF A VOLUNTEERING PROJECT AT ESCUELA DE EDUCACIÓN MEDIA NRO. 21 (SECONDARY SCHOOL N°21)

*Mar del Plata, Buenos Aires Argentina*

*Mar. 2009 - Mar. 2010*

## University Management

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**Student member of the Physics Departmental Council**  
FACULTAD DE CIENCIAS EXACTAS Y NATURALES, UNMDP

*Mar del Plata, Buenos Aires, Argentina*  
2014 - 2015

**Student member of the Faculty Academic Council**  
FACULTAD DE CIENCIAS EXACTAS Y NATURALES, UNMDP

*Mar del Plata, Buenos Aires, Argentina*  
2012 - 2016

**Student member of the University Assembly**  
UNMDP

*Mar del Plata, Buenos Aires, Argentina*  
2012 - 2016

**Student member of the University Superior Council**  
UNMDP

*Mar del Plata, Buenos Aires, Argentina*  
2010 - 2012