

JOINT PROCEEDINGS OF THE
XXXV Annual Meeting of the DPyC-SMF

May 11-13, 2021

XIX MEXICAN SCHOOL ON PARTICLES AND FIELDS

August 9-13, 2021



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Preface

XXXV Annual Meeting of the DPyC-SMF

The Division of Particles and Fields of the Mexican Physical Society organizes an annual meeting (RADPyC). The main objective of this event is to encourage graduate students and young postdocs to present their research on high energy physics. Additionally, recognized invited speakers at the national and international level, present review talks on diverse hot topics in the field. The meeting in 2021 was held as a virtual event due to the Covid-19 pandemic, and organized by the following institutions: Benemerita Universidad Autónoma de Puebla (BUAP), Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional (CINVESTAV), Universidad Autónoma de Chiapas (UNACH), and Universidad de Sonora (UNISON). The event ran from May 11th to the 13th. The scientific program covered the following areas: Astroparticle Physics and Cosmology, Neutrinos and Dark Matter, QCD and Hadron Physics, Physics Beyond the Standard Model, Electroweak and Flavor Physics, Quantum Field Theory, Detector Instrumentation, Computational Tools, and Accelerator Physics. A total of 9 invited talks, 22 contributed talks, and 17 posters were presented. During the event the three best posters were selected for *Best Poster* and *Honorific Mention* awards, and the *DPyC 2020 Medal* was awarded to Dr. Adnan Bashir. Two tributes were presented for recently deceased members Dr. Salvador Carrillo (former DPyC president) and Dr. Arnulfo Zepeda. Finally, during the meeting, Dr. Juan Barranco was announced as the new DPyC vice-president, joining Dr. Karen S. Caballero Mora (current president).

XIX Mexican School on Particles and Fields

The XIX Mexican School of Particles and Fields was held completely online on August 9-13, 2021. The objective of the School is to motivate young students and introduce them to several basic topics which are crucial to start a research career in particle physics. The School offered a space to

- Plenary and contributed talks.
- Special courses: Astroparticles and Cosmic Rays, Electroweak and Flavor Physics, Hadronic Physics and Strong Interactions, New Physics and Neutrinos, Quantum Field Theory, and Gravity.
- Tributes in honor of Prof. Arnulfo Zepeda and the former president of DPyC-SMF, Prof. Salvador Carrillo.

In this supplement of the *Revista Mexicana de Física*, we publish some of the works presented in the Annual Meeting and the School. We thank the authors for their contribution to this special volume and the referees for their work reviewing the quality of the submitted contributions. Finally, we would like to thank all participants for making the school a success.