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## XLI Symposium on Nuclear Physics 2018 (Cocoyoc2018)

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# XLI Symposium on Nuclear Physics

Hacienda Cocoyoc, Morelos, México  
January 8-11, 2018



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## PHOTOGRAPH OF THE EVENT



## PREFACE

Starting a new decade of meetings, the XLI Symposium on Nuclear Physics was celebrated at the Hacienda Cocoyoc from January 8-11, 2018. The Symposium was conceived from the beginning as a small meeting designed to bring together some of the leading nuclear scientists in the field. Its most distinctive feature is to provide a forum for specialists in different areas of nuclear physics, both theorists and experimentalists, students, postdocs and senior scientists, in a relaxed and informal environment providing them with a unique opportunity to exchange ideas. After the first meeting in Oaxtepec in 1978, the Symposium was organized every year without interruption, arriving now to the 41st edition.

The scientific program consisted of 32 invited talks and 16 posters on a wide variety of hot topics in contemporary nuclear physics, ranging from the traditional fields of nuclear structure and reactions to nuclear astrophysics, hadronic physics, fundamental symmetries, relativistic heavy ions, nuclear instrumentation and applied nuclear physics.

At the meeting there were representatives of many large international collaborations to report on the most recent research progress and the most recent developments in laboratories like Notre Dame, JLab, Cyclotron Institute Texas A&M and Los Alamos (USA); LUNA-LNGS, LNS and LNL from INFN (Italy); TRIUMF and SNOLAB (Canada); IPN-Orsay and IPHC (France); the facilities of RBI (Croatia), iThemba Labs (South Africa) and ELI-NP (Romania), as well as recent results obtained in local Mexican facilities like ININ, LEMA and the Van de Graaff Laboratory Carlos Graef. On the theoretical side, interesting new developments were presented in nuclear dynamics, nuclear structure, Equation of State, neutrino physics, beyond-the-Standard-Model physics, weakly bound nuclei, nuclear clusters, shell model, hadronic physics and low-energy QCD.

The high quality of the talks and posters, the expertise of the speakers and the broad spectrum of subjects covered in the meeting, shows that nuclear physics continues being a very active area at the frontier of scientific research which establishes bridges between many different disciplines, putting together theoretical and experimental researchers and having an extension to the instrumentation developments and applications. Is important to mention the large amount of young researchers and students that participated in this Mexican meeting.

This special volume of Journal of Physics: Conference Series contains 21

contributions that were presented at this year's Symposium.

Finally, we would like to thank all our colleagues for their enthusiastic participation in this 41st edition of the meeting. In particular, we are grateful to the members of the International Advisory Committee for their invaluable suggestions and to the anonymous referees for their time and dedication in helping us to maintain the high standard of the contributions published in the proceedings of the Symposium.

We want as well to thank to N. De Los Ríos for the nice Symposium logo design.

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Paulina Amador-Valenzuela  
Víctor Velázquez