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## UNNES Physics International Symposium 2018 (UPIS2018)

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#### **Preface**

The UNNES Physics International Symposium, UPIS 2018 was held in Semarang, Central Java, Indonesia on 3 May 2018 in Conjunction with 32<sup>nd</sup> National Seminar on Physics - Physical Society of Indonesia (PSI). In the symposium, the researchers from various area in Physics and Physics Educations presented their new findings from their latest works. The event was join-organized by Physics Department, Faculty of Mathematics and Natural Sciences, Universitas Negeri Semarang, Indonesia with Physical Society of Indonesia (PSI).

The symposium consisted of plenary sessions and 14 parallel sessions which covers the following topics: Theoretical and Computational Physics, Advanced Materials, Nanoscience and Nanotechnology, Nuclear and Particle Physics, Geophysics, Astrophysics, Instrumentation Physics, Laser and Optoelectronics, Energy and Environmental Physics, Physics Education and Interdisciplinary Physics. The plenary sessions were held in two sessions in which five keynote speakers from five countries shared their valuable knowledge and researches. We hope that this program will expand the mutual understanding and respect in stimulating research in Mathematics, Science, and Education; share research interest and information, and create a form of collaboration to build a trust relationship. We are delighted to be able to show the world what recent developments in the field of physics and its application through this fruitful program.

Having been peer-reviewed, the selected papers from 112 papers presented in this forum have been published in Journal of Physics: Conference Series (Institute of Physics Publisher) indexed in some databases, including the Conference citation index, Scopus, Inspec, Chemical Abstracts Service, and Astrophysics Data System.

We would like to thank to Faculty of Mathematics and Natural Sciences, Universitas Negeri Semarang, Indonesia for the financial support to this event. The acknowledgement is also delivered to PSI members for the collaboration in organizing this symposium. Further, our sincere gratitude also goes to the Editors and Reviewers for their throughout help and suggestion in compiling the proceeding. Last but not least, we would like to express our appreciation to all presenters and participants for their contribution in this event.

Chairman,

Dr. Putut Marwoto, M.S.

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### **Symposium Documentation**



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#### Parallel session









