

**Programme Advisory Committee for Condensed Matter Physics
46th meeting, 19–20 June 2017**

DRAFT PROGRAMME

Monday, 19 June 2017

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| 9.00 | 1. Opening of the meeting | D. Nagy
(5 min.) |
| | 2. Implementation of the recommendations of the previous PAC meeting | D. Nagy
(20 min.) |
| | 3. Information on the Resolution of the 121st session of the JINR Scientific Council (February 2017) and on the decisions of the JINR Committee of Plenipotentiaries (March 2017) | M. Itkis
(25 min.) |
| | 4. Work plan for the development of a concept for JINR's new neutron source | A. Vinogradov
(20 min.) |
| | 5. User demands on the parameters of a future neutron source at JINR | N. Kučerka
(20 min.) |

Coffee break

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| 6. | Reports and proposals on concluding themes and projects: | |
| | 6.1. Theme "Investigations of Condensed Matter by Modern Neutron Scattering Methods" and proposal for its extension | D. Kozlenko
(25 min.) |
| | <i>Referees: P. Alekseev
V. Osipov
V. Skuratov</i> | |
| | 6.2. Proposal for opening a new project "A system for neutron <i>operando</i> monitoring and diagnostics of materials and interfaces for electrochemical energy storage devices at the IBR-2 reactor" | M. Avdeev
(25 min.) |
| | <i>Referees: L. Rosta
D. Sangaa
K. Stevenson</i> | |

Lunch break

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| 14.30 | 6.3. Theme "Development of Experimental Facilities for Condensed Matter Investigations with Beams of the IBR-2 Facility" and project "Development of PTH sample environment system for the DN-12 diffractometer at the IBR-2 facility" and proposal for their extension | S. Kulikov
(45 min.) |
| | Proposal for opening a new project "Development of a wide-aperture backscattering detector (BSD) for the HRFD diffractometer" | |
| | <i>Referees: R. Hall-Wilton
A. Kulikov
A. Kurbakov</i> | |

6.4. Theme and project “Multimodal Platform for Raman and Nonlinear Optical Microscopy and Microspectroscopy for Condensed Matter Studies” G. Arzumanyan (25 min.)

Proposal for opening a new theme “Modern Trends and Developments in Raman Microspectroscopy and Photoluminescence for Condensed Matter Studies” and project “Ultrasensitive SECARS microspectroscopy and luminescent core-shell nanostructures”

Referees: M. Dubničková
V. Fedosyuk
V. Smirnov

Coffee break

6.5. Theme “Research on the Biological Effect of Heavy Charged Particles with Different Energies” and proposal for its extension E. Krasavin (25 min.)

Referees: R. Aroutiounian
M. Dubničková
O. Orlov

6.6. Theme and project “Novel Semiconductor Detectors for Fundamental and Applied Research” and proposal for their extension S. Kotov (25 min.)

Referees: N. Kardjilov
A. Vorobjev
N. Zamyatin

6.7. Project “Experiment technology development and applied research with slow monochromatic positron beams (project PAS)” and proposal for its extension P. Horodek (25 min.)

Referees: D. Nagy
V. Skuratov
E. Syresin

Tuesday, 20 June 2017

9.00 7. Meeting of the PAC members with the JINR Directorate (1 h)

10.00 8. Scientific reports:

8.1. “Fermi surface reconstruction in underdoped cuprates” E. Kochetov (20 min.)

8.2. “Magnetic phenomena in intermetallic compounds RCo₂: studies of the limits of the itinerant electron metamagnetism concept” S. Kichanov (20 min.)

8.3. “Simulation of damage threshold and structure in swift heavy-ion tracks in Al₂O₃” R. Rymzhanov (20 min.)

*Coffee break
(together with poster presentations)*

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| 9. Poster presentations by young scientists | (40 min.) |
| 10. Overview of the poster presentations | O. Belov
(10 min.) |
| 11. Award of the authors of the best poster presentations made at the previous PAC meeting | (10 min.) |
| 12. General discussion | (30 min.) |

Closed session:

- 13.00 13. Proposals for the agenda of the next PAC meeting
14. PAC recommendations
15. Closing of the meeting

The materials of the meeting are available at <http://indico.jinr.ru/>