Program of lunar & planetary symposium, Aug. 19-26, 2009, Kazan

Scientific Student Program

20 August, 2009 Morning session, Kazan University

10-00 – 12-00 Opening. Chair: Sakhibullin N.A.

1. Cherepaschuk A.M. Black hole in the Universe 60m

2. Shustov B. M. Galaxies: Birth, Life, Ending 60m

Lunch, 12-00 – 14.00

20 August, 2009 Evening session, Kazan University

14-00 – 16-00 Chair: Cherepaschuk A.M.

3. Marov M. Ya. Structure of Solar system - that we know today 60m

4. Malkov O.Yu. International virtual observatory 60m

Tee, Coffee – Break, 30 minutes

16-30 – 18-00 Poster Session

Dinner, 18-00 - 19-00

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19-00 – 20-00 Public Lecture TBD

Lector: Prof. Sunyaev R. A.

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21 August, 2009 Morning session, Kazan University

10-00 – 12-00 Chair: Marov M. Ya.

5. Rykhlova L.V. Near-Earth space: garbage artificial & garbage natural 60m

6. Grechko G.M. Cosmic stories 60m

Lunch, 12-00 – 14.00

21 August, 2009 Evening session, Kazan University

14-00 – 16-30 Chair: Stepanov A. V.

7. Hanada H. SELENE I mission (Japan): Lunar investigation (video) 60m

8. Skulski M., Romanuk I. From magnetism of CP-stars to magnetism of double stars 30m

Tee, Coffee – Break, 30 min

9. Ksanfomality L.V. 350 Extra-solar planets 60^m

Dinner, 18-00 - 19-00

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19-00 – 20-00 Public Lecture Black holes and the Universe

Lector: Prof. Cherepaschuk A.M.

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22 August, 2009 Morning session, Kazan University

10-00 – 12-00 Chair: Abalakin V.K.

10. Stepanov A. V. Main problems of solar activity 60^m

11. Shevchenko V.V. Modern problem of lunar exploration 60^m

Lunch, 12-00 – 14.00

22 August, 2009 Evening session, Kazan University

14-00 - 16-30 Chair: Rykhlova L. V.

12. Savinykh V. P. Modern problem of cosmic research 60^m

Tee, Coffee – Break, 30 min.

13. Mingaliev M. Role and place of radio astronomy in Universe research 60^m

14. Mironov A.V. TBD 30^m

17-00 - 18-00 General Discussion, discussion and acceptance of resolutions.

Chairs: Sakhibullin N. A., Zhukov G.V.

Dinner, 18-00 - 19-00

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August 22, Saturday, 2009

19.00 – 20.00 Public Lecture: Change of Climate and Increase of World Ocean Level

Lector: Professor Barkin Yu.V.

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23 August, Sunday 2009. Excursion: Travel by Ship on the River Volga to

10.00 – 19.00 Island Sviyazsk Russian Fortress XVI Century

Program of lunar & planetary symposium, Aug. 19-26, 2009, Kazan

Scientific Program

24 August, 2009 Morning session: Moon I

9-00 – 11-00 Opening. Chair: Nefed'ev Yu. A.

1. Marov M. Ya. Review of moon-planetary researches, 30 min.

2. Foing B. SMART-1 results and future lunar exploration **Plenary** 60 min.

3. Namiki N., S. Sugita , K. Matsumoto, S. Goossens , Y. Ishihara, H. Noda, S. Sasaki, T. Iwata, H. Hanada, H. Araki, S. Kamata, N. Kubo, A. Mori, M. Sato COMPARATIVE STUDY OF COMPENSATION MECHANISM OF LUNAR IMPACT BASINS FROM NEW GRAVITY FIELD MODEL OF SELENE (KAGUYA). 30 min.

Coffee – Break, 30 min

11-30 – 13-00 Chair: Marov M. Ya.

4. Barkin Yu, S.M.Kudryavtsev, M.Yu.Barkin Perturbations of first order of the Moon rotation 30 min

5. Hanada H, H. Noda, F. Kikuchi, S. Tazawa, H. Kunimori, K. Matsumoto, H. Araki, T. Iwata, K. Funazaki , S. Sasaki Different kinds of Observation of Lunar Rotation and Gravity for SELENE-2 30 min

6. Pinet P.C., S.D. Chevrel, J.-L. Josset, J. Haruyama. Recent results on Lunar Spaceborne Exploration based on Clementine, Smart-1 and Selene observations. 30 min

Lunch, 13-00 – 14.30

24 August, 2009 Evening session: Moon II

14-30 - 16-00 Chair: Foing B.

7. Araki H, S. Tazawa, H. Noda, Y. Ishii, S. Goossens, S. Sasaki, N. Kawano, I. Kamiya, H. Ohtake, J. Oberst, C. K. Shum. Lunar Global Topographic Map by the KAGUYA Laser Altimeter (LALT) 30min

8. Zheng W., Ping J., Hu X. Applications of Chinese VLBI Network in Chang'E-1 lunar exploration project. 30 min

9. Kopeikin S.M. Millimeter Laser Ranging to the Moon: a comprehensive theoretical model for advanced data analysis. 30 min

Coffee – Break, 30 min. Poster Session

16-30 - 18-30 Chair: Hanada H.

10. Kuskov O.L. Joint inversion of seismic and petrologic data for lunar thermal state. 30 min

11. Chao C., **B. Chen**, Q. Liang, J. Ping, Q. Huang. Lunar gravity anomaly and the Moon evolution based on CE-1 topography data. 30 min

12. Shuanggen Jin, A. Gusev, N. Petrova. Selenodesy and Selenophysics: recent results and problems. 15 min

13. **Kozlova E.A**., Lazarev E.N., Rodionova J.F., Shevchenko V.V. Investigation of the Lunar South Polar Region relief. 15 min

14. Kascheev R.A., R.E.Shakirov. Recent studies of the accuracy of lunar and terrestrial gravity models. 15 min

15. Kondratyev B.P. Vector approach to the Lunar physical libration 15 min

Dinner – Reception, 18-30 - 19-00

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24 August, 2009 Public Lecture: The Moon: Yesterday, Today, Tomorrow.

19-00 – 20-00 Lector: Prof. V.V. Shevchenko

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25 August, 2009 8-00 – 20-00, Elabuga bus excursion

26 August, 2009 Morning session: Planets and moons of solar system

9-00 – 11-00 Chair: Korablev O.

1. Zelenyi L. M. Europa lander. 30 min.

2. Souchay J, Cottereau L. The rotation of Venus: state-of-the art and precession-nutation model. 30^{m}

3. Ksanfomality L. Results of ground observation of still unknown side of Mercury. 30 min.

4. Akulenko L.D., Markov Yu.G., Perepelkin V.V. The dynamic analysis of oscillatory process of the deformable Earth 30 min

Coffee – Break, 30 min

11-30 – 13-15 Chair: Ksanfomality L.

5. Korablev O. Spacecraft observations of Mars: Recent achievements and plans for the future, 30 min

6. Fedorova A., O. Korablev, A.Trokhimovsky, J.L. Bertaux, A.Rodin, F. Montmessin, L.Maltagliati, S.Guslyakova, A.Reberac, A.Kiselev and the SPICAM team. Infrared measurements with SPICAM experiment on Mars-Express: three Martian years of observations of the Martian atmosphere 15 min

7. Marov M.Ya., A.B. Makalkin, A.V. Kolesnichenko, V.A. Dorofeeva, I.N. Ziglina. Modeling of evolution of the protoplanetary gas-dust circumsolar disk 30 min

8. Titov D. V., **Korablev O.**, H. Svedhem, S. Barabash, J.-L. Bertaux, P. Drossart, B. Häusler, W.J. Markiewicz, M. Pätzold, G. Piccioni, O. Witasse, R. Hoofs
Venus Express: three years of atmospheric observations 30 min

Lunch, 13-15 – 14.30

26 August, 2009 Evening session: Extra-Solar planet systems and moons

14-30 - 16-15 Chair: Gusev A.

9. Ksanfomality L. Some results of observation and researches of exoplanet properties 30 min

10. Franck Z., W. von Bloh, C. Bounama, M. Cuntz. Gliese 581d: The first habitable super-Earth-planet 30 min

11. **Barkin Y**. Moons and planets: mechanism of their active life 30 min

12. Busarev V.V. SPECTRAL CHARACTERISTICS OF GALILEAN MOONS OF JUPITER 15 min

Coffee – Break, 30 min Poster Session

16-45 - 18-00 Chair: Souchay J.

13. **Valeev S.G.,** Nefed'ev Yu. A., Mikeev R.R.,Varaksina N.Yu., The relative position of lunar centre of the masses and centre of the figure in selenocentric catalogues. 15 min

14. Petrova N., Gusev A., Hanada H., Akutina M. Application of the analytical theory of lunar physical libration for the simulation of observations of stars for the future Japanese Lunar project ILOM 15 min

15. Shpekin M.I., Sitdikova R.A. "Topographical Preparation of Landing Sites on Far Side of the Moon". 15 min

16. **Kazantseva L.V**. Modern application to observations of lunar occultations 15 min

17. Abdulmyanov T.R. The Newtonian model of perihelion motion of the planets 15 min

17-45–18-00 General Discussion and acceptance of resolutions, closing

Chairs: Marov M.Ya., Nefed'ev Yu. A.

Farewell Party, 18-00 - 19-00

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26 August, 2009 Public Lecture: "350 Extra-solar planets"

19-00 – 20-00 Lector: Prof. Ksanfomality L.V.

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Poster session:

1. Mushailov B.R., **V.S. Teplitskaya** On the evolution of two-frequency dynamical systems in the case of orbital lindblad resonances, taking into account the rayleigh dissipation
2. **Abdulmyanov T. R.** THE TWO PERIODIC ORBITS OF THE CELESTIAL BODIES OF CENTRAL GRAVITATIONAL FIELD
3. **Petrova N.**, Gusev A., Ivanova T., Coordinate systems on the Moon and Lunar Navigation Almanac.
4. **Petrova N**., Gusev A., Kawano N., Kikuchi F., Hanada H., Radio-beacons on the Moon - Inverse VLBI - and estimation of the Lunar physical libration accuracy in Japanese space experiment
5. **Petrova N.,** Gusev A., Tatarinov P., Akutina M., Development of user interface for computer modeling of the free libration periods of the multi-layered Moon
6. **Petrova N.,** Gusev A., Kawano N., Hanada H., Physical Libration and Interior of the multi-layered Moon
7. **Gusev A.,** Petrova N., Zakiev I., Internal structure and geometrical flattening of mantle and liquid core of the Moon
8. **Gusev A.,** Petrova N., Physical libration of mantle and liquid core of the Moon
9. **Nefedjev Yu.**, L. Rakhimov , N. Rizvanov , M. Kutlenkov, N.Varaksina. CATALOGUE OF A CRATERS LUNAR LIBRATION ZONE
10. **Shpekin M.I**. The Last "Apollo" Orbit Pass over the Tsiolkovsky Crater