Program of the Conference

June 6, 2000. Tuesday.

Plenary Session I

$09^h00^m \div 09^h15^m$	Opening Ceremony **Prof. Yaroslav S. Yatskiv**, SOC Chairman, First Deputy-Minister for Education and Science of Ukraine, UAA President, Director of the MAO NASU
$09^h15^m \div 09^h30^m$	**Dr. David E. Schindel** (*NSF, USA*) Representative of the National Science Foundation in Europe **International Collaboration and NSF**

Convener: **Prof. Yaroslav S. Yatskiv**

$09^h30^m \div 10^h00^m$	**Prof. Roald E. Gershberg** (*CrAO MESU, Ukraine*) The UAA Laureate of 1997–2000 yrs “For the Outstanding Contribution for Advancement of Astronomy in Ukraine” **UV-Astronomy: state-of-art and prospective.** **Contribution of the Crimean Astrophysical Observatory**
$10^h00^m \div 10^h30^m$	**Prof. Alexander A. Konovalenko** (*IRA NASU, Ukraine*) *A. A. Konovalenko*[(1)], *L. N. Litvinenko*[(1)], *A. A. Negoda*[(2)], *O. P. Fedorov*[(2)], *Ya. S. Yatskiv*[(3)] ([(1)]*IRA NASU,* [(2)]*NSAU,* [(3)]*MAO NASU, Ukraine*) **Ground-based and Space Astronomy in Ukraine**
$10^h30^m \div 11^h00^m$	**Dr. Yakiv V. Pavlenko** (*MAO NASU, Ukraine*) **New physics of brown dwarfs and L-dwarfs atmospheres**

P o s t e r S e s s i o n

1. **Natalia Artiukhovskaya** (*CRDF-Kyiv, Ukraine*) **CRDF activities with Ukraine**
2. **Photographic Exhibition: Astronomical equipment manufactured at the “Saturn” enterprise**

June 7, 2000. Wednesday.

Plenary Session II

Convener: **Prof. Oleksa P. M. Bilaniuk** (*USA*)

$09^h00^m \div 09^h30^m$	**Prof. Bodo Reinisch** (*Univ. of Massachusetts, Lowell, USA*) *B. W. Reinisch*[(1)], *D. M. Haines*[(1)], *I. A. Galkin*[(1)], *X. Huang*[(1)], *G. Sales*[(1)], *J. L. Green*[(2)], *R. F. Benson*[(2)], *S. F. Fung*[(2)], *W. W. L. Taylor*[(3)], *J.-L. Bougeret*[(4)], *R. Manning*[(4)], *P. Reiff*[(5)], *D. L. Carpenter*[(6)], *D. L. Gallagher*[(7)] ([(1)]*Univ. of Massachusetts Lowell,* [(2)]*NASA GSFC,* [(3)]*ITSS,* [(4)]*Obs. de Paris-Meudon, France,* [(5)]*Rice Univ.,* [(6)]*Stanford Univ., USA,* [(7)]*NASA MSFC*) **First Magnetospheric Echo Traces from the Radio Plasma Imager on IMAGE**
$09^h30^m \div 10^h00^m$	**Prof. Igor D. Karachentsev** (*SAO RAS, Russia*) *I. D. Karachentsev*[(1)], *V.E. Karachentseva*[(2)] ([(1)]*SAO RAS, Russia,* [(2)]*AO NU, Ukraine*) **The Local Universe**
$10^h00^m \div 10^h30^m$	**Prof. Werner W. Weiss** (*Univ. of Vienna, Austria*) **Asteroseismology: Challenge for International Collaboration**
$10^h30^m \div 11^h00^m$	**Dr. Claus Leitherer** (*STScI, USA*) **Heavy Element Abundance in the Early Universe**

June 8, 2000. Thursday.

Plenary Session III

Convener: **Prof. Alexander A. Konovalenko** (*Ukraine*)

$09^h00^m \div 09^h30^m$	**Prof. Ivan L. Andronov** (*DAstr. OSU, Ukraine*) *I. Andronov*[1], *L. Chinarova*[1], *D. Chochol*[2], *K. Gazeas*[3], *A. Halevin*[1], *S. Kolesnikov*[1], *L. Kudashkina*[1], *V. Marsakova*[1], *P. Mason*[4], *P. Niarchos*[3], *L. Patkos*[5], *N. Shakhovskoy*[6], *L. Shapovalova*[1], *J. Tremko*[2], *S. Zola*[7,8] *([1] DAstr.OSU, Ukraine, [2] AI Slovak AS, Slovakia, [3] Univ. of Athens, Greece, [4] New Mexico State Univ., USA, [5] Konkoly Obs., Hungarian AS, Hungry, [6] CrAO MESU, Ukraine, [7] Mt.Suhora Obs., Pedagogical Univ., Poland, [8] AO Jagiellonian Univ., Poland)* **Periodic and Aperiodic Variability of the Interacting Binary and Longperiodic Stars**
$09^h30^m \div 10^h00^m$	**Prof. John Gaustad** (*Swarthmore College, USA*) **Robotic Wide-Angle H_α Survey of the Southern Sky**
$10^h00^m \div 10^h30^m$	**Prof. Roman I. Kostik** (*MAO NASU, Ukraine*) *E. Khomenko, R. Kostik, N. Shchukina (MAO NASU, Ukraine)* **The 5-min Solar Oscillations Under Granular and Intergranular Lanes**
$10^h30^m \div 11^h00^m$	**Prof. Klaus Jockers** (*Max-Planck Inst. for Aeronomy*) *K. Jockers*[1], *T. Credner*[1], *T. Bonev*[2], *N. Kiselev*[3], *P. Korsun*[4], *I. Kulyk*[4], *V. Rosenbush*[4], *A. Andrienko*[5], *N. Karpov*[5], *A. Sergeev*[5], *V. Tarady*[5] *([1] Max-Planck Inst. for Aeronomy, Germany, [2] IA Bulgarian AS, Bulgaria, [3] AO KhNU, Ukraine, [4] MAO NASU, Ukraine, [5] ICAMER)* **Exploration of the solar system with the Two-Channel Focal Reducer at the 2m-RCC Telescope of the Peak Terskol Observatory**
$11^h30^m \div 13^h00^m$	**General Discussion** **Reports of the Workshop Chairmen/Conveners** **Discussion. Concluding Remarks. Resolutions**

Workshop I. VLBI for Astronomy and Geodynamics

June 6, 2000. Tuesday.

Workshop Chairman: **Prof. Leonid N. Litvinenko** (*IRA NASU, Ukraine*)

Session 1. VLBI for Astronomy

Convener: **Dr. Chopo Ma** (*NASA GSFC, USA*)

$11^h30^m \div 11^h50^m$	*S. Ya. Braude,* ***A. A. Konovalenko,*** *A. V. Megn (IRA NASU)* **Decameter radio astronomy in Ukraine: past, present, future**
$11^h50^m \div 12^h10^m$	*S. Ya. Braude, A. V. Megn, S. L. Raskovsky,* ***V. A. Shepelev*** *(IRA NASU, Ukraine)* **VLBI technologies at decameter wavelengths**
$12^h10^m \div 12^h30^m$	***A. Volvach***, *N. Nesterov (CrAO MESU, Ukraine)* **VLBI observations of high redshift quasar 0642+449 at 1.6 GHz**
$12^h30^m \div 12^h50^m$	*S. V. Malevinskij*[1], *V. M. Abrosimov*[1], ***A. A. Konovalenko***[2], *L. N. Litvinenko*[2], *I. S. Falkovich*[2], *A. A. Gridin*[2], *S. V. Stepkin*[2], *V. I. Lebed*[3], *V. M. Chmil*[3], *E. P. Molotov*[4], *S. P. Ignatov*[4], *I. E. Molotov*[5], *S. F. Likhachev*[5], *V. G. Grachev*[6], *A. M. Finkelshtein*[6], *B. N. Lipatov*[7], *A. F. Dementjev*[7], *A. L. Zajtsev*[8]

([1] Nat. Space Centre, [2] IRA NASU, [3] "Saturn", Ukraine; [4] Space Design Inst., [5] AstroSpace Centre, [6] Inst. for Applied Astronomy, [7] Inst. of Radio Physics RAS, [8] Inst. of Radio Engineering RAS, Russia)
Upgrade of Evpatoria RT-70 antenna with equipment for radio astronomy and VLBI

$12^h50^m \div 13^h10^m$ ***A. S. Kharin*** *(MAO NASU, Ukraine)*
IR/radio quasars for VLBI and IR positional observations

Session 2. VLBI for Geodynamics

Convener: **Prof. Valeri M. Shulga** *(IRA NASU, Ukraine)*

$15^h00^m \div 15^h20^m$ ***Chopo Ma*** *(NASA GSFC, USA)*
The applications of VLBI in geodesy and geodynamics

$15^h20^m \div 15^h40^m$ ***M. Sorgente*** *(Geodetic Inst., Univ. of Bonn, Germany)*
Geodetic VLBI: schedule, observations, correlation, analysis

$15^h40^m \div 15^h50^m$ ***M. Sorgente*** *(Geodetic Inst., Univ. of Bonn, Germany)*
Performances of Crimea's RT-22 in the Geodetic VLBI European campaigns

$15^h50^m \div 16^h00^m$ ***A. Volvach***[1], *L. Petrov*[2], *N. Nesterov*[1]
([1] CrAO MESU, Ukraine, [2] Geodetic Inst., Univ. of Bonn, Germany)
VLBI measurement of horizontal motion of the station "Simeiz"

$16^h00^m \div 16^h10^m$ ***S. Bolotin*** *(MAO NASU, Ukraine)*
VLBI Analysis Center at MAO NASU

$16^h10^m \div 16^h20^m$ ***B. Kolaczek,*** *J. Nastula (Space Research Centre, Polish Academy of Sciences, Poland)*
Seasonal oscillations of the Earth Rotation on the last 50 years

$16^h20^m \div 16^h30^m$ ***O. O. Molotaj***[1], *V. V. Tel'nyuk-Adamchuk*[1], *Ya. S. Yatskiv*[2]
([1] AO NU, [2] MAO NASU, Ukraine)
GAOUA series of compiled celestial reference frame

$16^h30^m \div 16^h40^m$ ***G. I. Pinigin***[1], *A. V. Shulga*[1], *N. V. Maigurova*[1], *Yu. I. Protsyuk*[1], *F. P. Velichko*[2], *P. N. Fedorov*[2], *R. I. Gumerov*[3], *I. F. Bikmaev*[3], *Jin Wenjng*[4], *Wang Shune*[4] *([1] Mykolaiv AO MESU, [2] AO KhNU, Ukraine; [3] Engelhardt AO, Kazan State Univ., Russia; [4] Shanghai AO, China)*
Refinement of linking optical/radio reference frames on the base of coordinated observations at Ukrainian, Russian and China observatories

Poster Sessions

Session 1. VLBI for Astronomy

W1S1_P1 *A. A. Konovalenko*[1], *A. Lecacheux*[2], *C. Rosolen*[2], *H. Rucker*[3] *([1] IRA NASU, Ukraine, [2] Paris-Meudon Obs., France, [3] Space Research Inst., Austria)*
New frontiers in very low frequency radio astronomy

W1S1_P2 *N. S. Nesterov*[1], *A. E. Volvach*[1], *I. D. Strepka*[1], *V. M. Shulga*[2], *V. I. Lebed*[3], *A. M. Pylypenko*[3] *([1] CrAO MESU, [2] IRA NASU, [3] "Saturn", Ukraine)*
22 GHz radiometer for VLBI station "Simeiz"

Session 2. VLBI for Geodynamics

W1S2_P1 *A. Korsun'*[1], *G. Kurbasova*[2] *([1] MAO NASU, [2] CrAO MESU)*
New version of the polar motion in 1846–1900

Session 3. EAS's observations

W1S3_P1 *Ya. T. Blagodyr, A. I. Bilinsky, Je. B. Vovchyk, O. O. Logvinenko (AO LNU)*
Instruments for space control: problems

W1S3_P2 *N. Kablak, I. Tegza, I. Shvalagin (SRL UzhSU, Ukraine)*
Altitude profiles of humidity in atmosphere

W1S3_P3	*A. G. Kirichenko*[2], *L. M. Kizyun*[1], *V. U. Klimik*[2] ([1]*MAO NASU*, [2]*SRL UzhSU*) **Geostationary satellites: evolution of their orbits and probability of collision with other objects**
W1S3_P4	*I. Tegza* (*SRL UzhSU, Ukraine*) **Influence of temperature and humidity inversion on change of air refraction index and ranging correction to EASs**
W1S3_P5	*Je. Vovchyk*[1], *F. Masumi*[2] ([1]*AO LNU, Ukraine*, [2]*Sternberg AI, Russia*) **EASs: problems of its identification**

Workshop II. Evolution of Galaxies

June 6, 2000. Tuesday.

Workshop Chairman: **Dr. Sergiy A. Silich** (*MAO NASU, Ukraine*)

Session 1.

Convener: **Dr. Claus Leitherer** (*STScI, USA*)

$11^h30^m \div 12^h00^m$	*Yu. S. Efimov, N. I. Merkulova, Yu. I. Neshpor,* ***I. I. Pronik****, V. I. Pronik, S. G. Sergeev, N. M. Shakhovskoy, A. A. Stepanian* (*CrAO, Ukraine*) **Active Galactic Nuclei: results at the Crimean Observatory**
$12^h00^m \div 12^h20^m$	***A. P. Miroshnichenko*** (*IRA NASU, Ukraine*) **The nuclei activity recurrence and the luminosity periodicity of quasars and galaxies**
$12^h20^m \div 12^h40^m$	***N. G. Guseva*** (*MAO NASU, Ukraine*) **Wolf-Rayet galaxies**
$12^h40^m \div 13^h00^m$	***M. S. Oey*** (*STScI, USA*) **A new look at inhomogeneous chemical evolution**
$13^h00^m \div 13^h20^m$	***P. Berczik*** (*MAO NASU, Ukraine*) **Dynamical SPH + N-body code for chemo-photometric evolution of disk galaxies**

June 7, 2000. Wednesday.

Session 2.

Convener: **Prof. Igor Karachentsev** (*SAO RAS, Russia*)

$11^h30^m \div 11^h50^m$	***B. Novosyadlyj***[1], *R. Durrer*[2], *S. Apunevych*[1] ([1] *AO LNU*, [2]*Univ. De Gen'eve, Switzerland*) **Cosmological parameters from observational data on the large scale structure of the Universe**
$11^h50^m \div 12^h10^m$	***P. Flin, J. Krywult*** (*Pegagogical Univ. of Kielce, Poland*) **The subclustering in cD galaxy groups and clusters**
$12^h10^m \div 12^h30^m$	*V. Berezinsky*[1], ***B. Hnatyk***[2], *A. Vilenkin*[3] ([1]*INFN, Italy*, [2] *IAPMM NASU, Ukraine*, [3]*Tufts Univ., USA*) **Superconducting cosmic strings as Gamma Ray Burst engines**
$12^h30^m \div 12^h50^m$	***V. Dudinov***[1], *P. Bliokh*[2], *B. Paczynski*[3], *H. Nilsen*[4], *R. Schild*[5], *V. Vakulik*[1], *A. Zheleznyak*[1], *B. Artamonov*[6], *S. Nuritdinov*[7], *Sh. Ehgamberdiev*[7] ([1]*AO KhNU*, [2]*IRA NASU, Ukraine;*[3]*Princeton Univ. Obs., USA;* [4]*Maidanak Foundation, Norway;* [5]*Center for Astrophysics, Cambridge, USA;* [6]*Sternberg AI, Russia;* [7]*Ulugh Beg Astronomical Inst., Uzbekistan*) **Program of international collaborative research of gravitational lens systems**

$12^h50^m \div 13^h10^m$	***A. V. Yushchenko*** (*AO OSU, Ukraine*) **Gravitational lensing by globular clusters. Theory & observations**
$13^h10^m \div 13^h30^m$	***S. V. Khmil***[(1)], *J. Surdej*[(2)] ([(1)]*AO NU, Ukraine,* [(2)]*Inst. of Astrophysics, Univ. of Liezhe, Belgium*) **Spectra extraction algorithm based on the maximum entropy method and its application to gravitationally lensed quasar Q1009-0252 A&B**

Session 3.

Convener: **Dr. Bohdan I. Hnatyk** (*IAPMM NASU, Ukraine*)

$15^h00^m \div 15^h30^m$	***J. Dickel*** (*Univ. Of Illinois, USA; ASTRON, Netherlands*) **Interaction of Supernova remnants with their surroundings** (review)
$15^h30^m \div 16^h00^m$	**G. Bisnovatyi-Kogan** (*ISR RAS, Russia*) **Magnetic fields of neutron stars: observations and models**
$16^h00^m \div 16^h30^m$	***S. A. Silich*** (*MAO NASU, Ukraine*) **X-ray emission from the starburst-produced superbubbles**
$16^h50^m \div 17^h10^m$	*K. R. Anantharamaiah*[(1)], *W. C. Erickson*[(2)], *N. Kantharia*[(3)], ***A. A. Konovalenko***[(4)], *S. V. Stepkin*[(4)], *D. V. Shalunov*[(4)] ([(1)]*Raman Research Inst., India;* [(2)]*Maryland Univ., USA;* [(3)]*National Center of Radio Astrophysics, India;* [(4)]*IRA NASU, Ukraine)* **Interstellar plasma investigations with the recombination radio lines of very excited carbon atoms**
$17^h10^m \div 17^h40^m$	***H. Dickel*** (*Univ. of Illinois, USA; ASTRON, Netherlands*) **The star forming regions W_49_A_North and W_58_C**
$17^h40^m \div 18^h00^m$	***V. M. Shulga***, *A. Antyufeev* (*IRA NASU, Ukraine*) **Model of the CO molecule emission from the cloud with bipolar outflows**
$18^h00^m \div 18^h15^m$	***E. Khalisi*** (*Astronomisches Rechen-Inst., Germany*) **Shortening of Core Collapse Time in Star Clusters with Two Masses**

June 6–7, 2000.

P o s t e r S e s s i o n

W2_P1	*L. S. Pilyugin*[(1)], *F. Ferrini*[(2)] ([(1)]*MAO NASU, Ukraine,* [(2)]*Univ. of Pisa, Italy*) **The oxygen abundance deficiency in irregular galaxies**
W2_P2	*A. Eigenson, O. Yatsyk* (*AO LNU, Ukraine*) **Factor analysis of galactic globular clusters on structural parameters**
W2_P3	*N. G. Guseva, Yu. I. Izotov* (*MAO NASU, Ukraine*) **Low-metallicity blue compact dwarf galaxies found in the Hamburg spectral survey**
W2_P4	*B. Hnatyk, O. Petruk* (*IAPMM NASU, Ukraine*) **X-ray emission of the supernova remnants in the nonuniform interstellar medium**
W2_P5	*I. Yu. Izotova, S. L. Parnovsky* (*AO NU, Ukraine*) **Star formation rate in Markarian galaxies**
W2_P6	*L. Pilyugin*[(1)], *F. Ferrini*[(2)]([(1)]*MAO NASU, Ukraine,*[(2)] *Italy*) **On the origin of Z-L relation for late-type galaxies**
W2_P7	*V. M. Shulga, A. Antyufeev, I. Lavrik* (*IRA NASU, Ukraine*) **The effect of dust on the CO molecular spectrum in dust-molecular clouds**
W2_P8	*O. A. Zheleznyak* (*Uman Univ., Ukraine*) **On the origin of counter flows in galaxies**
W2_P9	*I. B. Vavilova* (*AO NU, Ukraine*) **Wavelet analysis as approach to recognize abundance zone in galaxy distribution**
W2_P10	*O. Petruk* (*IAPMM NASU, Ukraine*) **X-ray emission of the remnants of an aspherical Supernova explosions**

Workshop III. Solar System Bodies

June 6, 2000. Tuesday.

Workshop Chairmen:
Dr. Theodor Kostiuk (*NASA GSFC, USA*)
Prof. Vitalii G. Kruchynenko (*AO NU, Ukraine*)
Prof. Yuri Shkuratov (*AO KhNU, Ukraine*)

Session 1. Planetary Atmospheres and Solid Surfaces

Convener: **Prof. Yuri Shkuratov** (*AO KhNU, Ukraine*)

$15^h00^m \div 15^h20^m$	***T. Kostiuk*** (*NASA GSFC, USA*) **Unique infraredstudies of planetary atmospheres:** **The Cassini/Huygens mission and ground based studies**
$15^h20^m \div 15^h40^m$	***E. G. Yanovitskij***, *J. M. Dlugach* (*MAO NASU, Ukraine*) **Global structure of the Venusian cloud layer**
$15^h40^m \div 16^h00^m$	***A. Vid'machenko*** (*MAO NASU, Ukraine*) **New method for registration of oscillations in atmospheres of Jovian planets**
$16^h00^m \div 16^h20^m$	***T. Viik*** (*Tartu Obs., Estonia*) **Temperature distribution in a planet-parallel atmosphere subjected** **to cosine varying collimated radiation**
$16^h20^m \div 16^h40^m$	***V. Kaydash***[1]**,** *L. Starukhina*[1], *N. Bondarenko*[2] ([1]*AO KhNU,* [2]*IRE NASU, Ukraine*) **Distribution of 3He content over lunar surface**
$16^h40^m \div 16^h50^m$	*P. Rodriguez*[1], *Yu. I. Belov*[2], *Yu. V. Tokarev*[2],***O. M. Uljanov***[3], *K. van't Klooster*[4] ([1]*Naval Research Lab., USA,* [2]*Radiophysical Inst., Russia,* [3]*IRA NASU, Ukraine,* [4]*ESA, Netherlands*) **Radar investigations of solar system objects at extremely low frequencies**
$16^h50^m \div 17^h10^m$	***R. Vdovichenko***[1], *A. Kreslavsky*[1], *Yu. Shkuratov*[1], *J. Raitala*[2] ([1]*AO KhNU, Ukraine,* [2]*Oulu Univ., Finland*) **Dielectric constant of tessera surface material on Venus** **from "Magellan" data**

June 7, 2000. Wednesday.

Session 2. Optical Phenomena near Opposition

Conveners: **Dr. Theodor Kostiuk** (*NASA GSFC, USA*)

$11^h30^m \div 11^h50^m$	***M. Mishchenko, N. Zakharova*** (*NASA GISS, USA*) **Weak photon localization and opposition phenomena** **in planetary astrophysics**
$11^h50^m \div 12^h10^m$	***Yu. Shkuratov***[1], *A. Ovcharenko*[1], *D. Stankevich*[1], *R. Nelson*[2], *W. Smythe*[2], *K. Muinonen*[3], *J. Piironen*[3], *O. Rak*[1] ([1]*AO KhNU, Ukraine,* [2]*JPL, USA,* [3]*AO of Helsinki Univ., Finland*) **Laboratory measurements of negative polarization of surface** **with complicated structure at small phase angles**
$12^h10^m \div 12^h30^m$	***V. K. Rosenbush***[1], *N. N. Kiselev*[2], *K. Jockers*[3], *V. V. Korokhin*[2], *N. M. Shakhovskoy*[4], *Yu. S. Efimov*[4] ([1]*MAO NASU, Ukraine,* [2]*AO KhNU,* *Ukraine,* [3]*Max-Planck Inst. for Aeronomy, Germany,* [4]*CrAO, Ukraine*) **Optical Polarimetry of the Galilean Satellites, Iapetus,** **and 64 Angelina near Opposition**

$12^h30^m \div 12^h50^m$ ***E. Zubko***[(1)], *Yu. Shkuratov*[(1)], *K. Muinonen*[(2)]
([(1)]*AO KhNU, Ukraine,* [(2)]*AO of Helsinki Univ., Finland*)
Light-scattering by particle aggregates compared with wave-length and their approximation by system of balls

$12^h50^m \div 13^h10^m$ ***I. Kulyk***[(1)], *K. Jockers*[(2)], *N. Karpov*[(3)], *A. Sergeev*[(3)]
([(1)]*MAO NASU, Ukraine,* [(2)]*Max-Planck Inst. for Aeronomy, Germany,* [(3)]*ICAMER*)
Near-Infrared Photometric Observations of the Inner Jovian Satellites

$13^h10^m \div 13^h30^m$ ***I. N. Belskaya***, *V. G. Shevchenko* (*AO KhNU, Ukraine*)
Opposition effect of asteroids

Session 3. Satellites, Asteroids, Comets, Meteoroids: Theoretical Aspects

Convener: **Prof. Leonid M. Shulman** (*MAO NASU, Ukraine*)

$15^h00^m \div 15^h20^m$ ***D. Lupishko***[(1)], *T. Lupishko*[(1)], *M. di Martino*[(2)]
([(1)]*AO KhNU, Ukraine,* [(2)]*AO di Torino, Italy*)
What the physical properties of NEAS tell us about their origin?

$15^h20^m \div 15^h40^m$ ***D. O. ReVelle***[(1)]**,** *V. G. Kruchynenko*[(2)]
([(1)]*Los Alamos National Labor., USA,* [(2)]*AO NU, Ukraine*)
Influx of Space Bodies to the Earth

$15^h40^m \div 16^h00^m$ ***S. V. Kolomiets*** (*KhTURE,Ukraine*)
Search for interstellar meteoroids

$16^h00^m \div 16^h20^m$ ***L. M. Shulman*** (*MAO NASU, Ukraine*)
The Comet Hale-Bopp nucleus: How fast its axial rotation was?

$16^h35^m \div 16^h50^m$ ***N. Kiselev***[(1)], *K. Jockers*[(2)], *V. K. Rosenbush*[(3)] ([(1)]*AO KhNU, Ukraine,* [(2)]*Max-Plank Inst. for Aeronomy, Germany,* [(3)]*MAO NASU, Ukraine*)
Organic matter in dust particles of Comet 21P/Giacobini-Zinner and the Draconoid meteoroids

$16^h50^m \div 17^h05^m$ ***K. Jockers*** [(1)], *T. Bonev*[(2)], *N. Karpov*[(4)], *P. Korsun*[(3)], *A. Sergeev*[(4)], *V. Tarady*[(4)]
([(1)]*Max-Planck-Institute for Aeronomy,* [(2)] *Inst. Astronomy, Bulgarian AS, Bulgary,* [(3)]*MAO NASU,* [(4)] *ICAMER*)
H_2O^+ and CO^+ion content in comets 21P/Giacobini-Zinner and C/1999 J3 (Linear) derived from observations at Pik Terskol

June 6–7, 2000.
P o s t e r S e s s i o n s

Session 1. Planetary Atmospheres and Solid Surfaces

W3S1_P1 *N. Bondarenko, Yu. Kornienko* (*IRE NASU, Ukraine*)
On the possibility of application of subsurface ultra-wideband radar for studying of surface layer of solar system planets

W3S1_P2 *M. S. Dement'ev* (*MAO NASU, Ukraine*)
Temporal changes in spectrum of Titan

W3S1_P3 *I. Dulova, Yu. Kornienko, V. Pugach* (*IRE NASU, Ukraine*)
Estimation of random errors of photometric method for planet relief determination

W3S1_P4 *E. Grynko, D. Stankevich* (*AO KhNU, Ukraine*)
Shadow-hiding effect for multiple valued surfaces like planet regolith

W3S1_P5 *Yu. K. Gulak*[(1)], *P. M. Fedij*[(3)], *I. A. Dichko*[(2)]([(1)]*Gravimetrical Obs., NASU, Ukraine,* [(2)]*Poltava Military Inst. of Commun., Ukraine,* [(3)]*Poltava Pedagogical Univ., Ukraine*)
Statistical analysis of gravitating substance distribution in the Solar system

W3S1_P6 *Yu. Kornienko, V. Pugach* (*IRE NASU, Ukraine*)
Informational efficiency of a multibeam interferometer in the observation of an object through the terrestrial atmosphere

W3S1_P7 *A. A. Veles, A. V. Morozhenko, M. G. Sosonkin, A. V. Shavrina, I. G. Kesselman (MAO NASU, Ukraine)*
The hardware-software complex of infrared Fourier spectrometer for air pollution monitoring

W3S1_P8 *A. P. Vid'machenko, P. V. Nevodovsky (MAO NASU, Ukraine)*
Observations with cooled photometric head on the basis of a photomultiplier with the InGaAs photocathode

W3S1_P9 *O. V. Zavizion (Uman Univ., Ukraine)*
On the description of the external gravitational potential of planets with the potential of the system of inhomogeneous self-gravitating disks

W3S1_P10 *A. P. Fomina (KNU, Ukraine)*
To the theory of Jupiter decameter radiation

Session 2. Optical Phenomena near Opposition

W3S2_P1 *G. Z. Butenko[1], V. I. Kuznetsov[1], L. I. Snezhko[2], V. N. Andruk[3], V. G. Parusimov[3], Y. S. Ivanov[3], A. V. Sergeev[1] ([1]ICAMER, [2]SAO RAS, Russia, [3]MAO NASU, Ukraine)*
2-m telescope optic and astronomical climate research at the Peak Terskol

W3S2_P2 *Yu. N. Krugly, I. N. Belskaya, V. G. Chiorny, V. G. Shevchenko (AO KhNU, Ukraine)*
Results of CCD observations of near-Earth asteroids in 1999

W3S2_P3 *A. Ovcharenko[1], Yu. Shkuratov[1], R. Nelson[2], W. Smyth[2], K. Muinonen[3], J. Piironen[3], S. Keraenen[3], O. Rak[1] ([1]AO KhNU, Ukraine, [2]JPL, USA, [3]AO of Helsinki Univ., Finland)*
Opposition spikes of surfaces with complex structure

W3S2_P4 *L. V. Rykhlova[1], V. K. Tarady[2], A. V. Sergeev[2], N. V. Karpov[2], S. I. Barabanov[1], I. V. Kulik[3], M. A. Smirnov[1], G. T. Bologova[1] ([1]AI RAS, Russia, [2]ICAMER, [3]MAO NASU, Ukraine)*
The First Results of Observations of Kuiper belt asteroids at the 2m Peak Terskol Telescope

W3S2_P5 *V. Shavlovskij (MAO NASU, Ukraine)*
Analysis of the solar phase curves of the Galilean satellites Callisto and Ganymede

W3S2_P6 *G. Pinigin[1], V. Pishnenko[1], Zh. Pozhalova[1], A. Shulga[1], Yu. Chernetenko[2], V. Shor[2], M. Rapaport[3], B. Viateau[3] ([1]Mykolaiv Astrometrical Obs., Ukraine, [2]Inst.for Applied Astronomy RAS, Russia, [3]Bordeaux AO, France)*
Asteroids observation with Mykolaiv zone astrograph under the Program of international cooperation between MAO, IAA, BAO

Session 3. Satellites, Asteroids, Comets, Meteoroids: Theoretical aspects

W3S3_P1 *S. A. Borysenko (MAO NASU, Ukraine)*
Analysis of variations in some spectral lines of comet Halley

W3S3_P2 *K. I. Churyumov, V. V. Kleshchonok, F. I. Kravtsov (AO NU, Ukraine)*
Photoelectric monitoring of comet Hale-Bopp (C/1995 O1) at the Lisnyky

W3S3_P3 *Yu. K. Gulak[1], I. A. Dichko[2] ([1]Gravimetrical Obs., NASU, Ukraine, [2]Poltava Military Inst. of Commun., Ukraine)*
The Titius law and its physical bases

W3S3_P4 *Yu. K. Gulak[1], I. A. Dichko[2] ([1]Gravimetrical Obs., NASU, Ukraine, [2]Poltava Military Inst. of Commun., Ukraine)*
On the nature of regularities of Saturnian ring's radial structure

W3S3_P5 *P. P. Korsun[1], K. Jockers[2] ([1]MAO NASU, Ukraine, [2]Max-Plank Inst. for Aeronomy, Germany)*
CN and NH_2 atmospheres of Comet/1999 J3 (LINEAR)

W3S3_P6 *A. A. Kuhtin (KhTURE, Ukraine)*
Hardware selectivity of the radar-tracking register of orbits of individual radiometeors

W3S3_P7	*Yu. V. Sizonenko* (*MAO NASU, Ukraine*) **The surface photometry of comets: outlook for small telescopes**
W3S3_P8	*O. A. Zheleznyak, A. A. Tereshchenko* (*Uman Univ., Ukraine*) **Peculiarities of dynamics of planetary satellites**
W3S3_P9	*V. V. Prokof'eva, V. P. Tarashchuk* (*CrAO MESU, Ukraine*) **Discovery of high-speed sodium clouds in Jovian magnetosphere as a result of its interaction with the comet Shoemaker-Levy 9 matter**
W3S3_P10	*V. Filonenko*[(1)], *K. I. Churyumov*[(2)] ([(2)]*AO KhNU, Ukraine,* [(2)]*AO KNU, Ukraine*) **New phenomenons in the evolution of integral brightness and outburst activity of comets**

Workshop IV. Stellar Variability

June 6, 2000. Tuesday.

Workshop Chairman:
Dr. Borys E. Zhilyaev (*MAO NASU, Ukraine*)

Session 1. Flares in Late-Type stars

Convener: **Dr. Borys E. Zhilyaev** (*MAO NASU, Ukraine*)

$11^h30^m \div 12^h00^m$	***R. E. Gershberg***, *N. I. Shakhovskaya* (*CrAO MESU, Ukraine*) **Some results of international campaigns initiated by CrAO for investigations of flare stars**
$12^h00^m \div 12^h30^m$	***M. E. Contadakis***, *S. Avgoloupis, L. N. Mavridis* (*Univ. of Thessaloniki, Greece*) **Stephanion Observatory. Greek-Ukrainian Astrolink**
$12^h30^m \div 13^h00^m$	***V. Hambaryan***[(1,2)], *R. Neuhauser*[(2)], *B. Stelzer*[(2)], *A. Schwope*[(1)] ([(1)]*Astrophysikalishes Inst., Germany,* [(2)]*Max-Plank Inst. fur Extraterrestrische Physik, Germany*) **ROSAT X-ray observations of stellar flares: UV Cet type stars of the solar vicinity**
$13^h00^m \div 13^h30^m$	***D. Nogami***[(1)], *T. Kato*[(2)], *H. Yamaoka*[(3)], *M. Uemura*[(2)] ([(1)]*Univ.Sternwarte, Germany,* [(2)]*Kyoto Univ., Japan,* [(3)]*Kyushu Univ., Japan*) **International Cooperation on Transient Object Observations: its Importance and Recent Results**

Session 2. Flares in Late-Type stars

Convener: **Prof. Roald E. Gershberg** (*CrAO, MESU, Ukraine*)

$15^h00^m \div 15^h30^m$	***B. E. Zhilyaev***[(1)], *Ya. O. Romanyuk*[(1)], *I. A. Verlyuk*[(1)], *O. A. Svyatogorov*[(1)], *V. R. Khalack*[(1)], *A. V. Sergeev*[(2)], *R. K. Konstantinova-Antova*[(3)], *A. P. Antov*[(3)], *R. S. Bachev*[(3)], *I. Yu. Alekseev*[(4)], *V. E. Chalenko*[(4)], *D. N. Shakhovskoy*[(4)], *M. E. Contadakis*[(5)], *S. J. Avgoloupis*[(5)] ([(1)]*MAO NASU, Ukraine* [(2)]*ICAMER,* [(3)]*Inst. Astronomy, Bulgarian AS,* [(4)]*CrAO MESU, Ukraine,* [(5,6)]*Univ. of Thessaloniki, Greece*) **High-frequency optical oscillations on the flare star EV Lacertae**
$15^h30^m \div 16^h00^m$	*E. A. Baranovsky,* ***R. E. Gershberg***, *D. N. Shakhovskoy* (*CrAO MESU, Ukraine*) **Structures of the quiet chromosphere and flares of red dwarf EV Lac concluded from observed emission spectra**
$16^h00^m \div 16^h30^m$	***R. K. Konstantinova-Antova***, *A. P. Antov* (*Inst. Astronomy, Bulgarian AS, Bulgary*) **Flares on single late giants**
$17^h00^m \div 17^h45^m$	Coordinated Observations: Past and Future (Discussion) Moderator: **Prof. Roald E. Gershberg**

June 7, 2000. Wednesday.

Session 3. Stellar variability and abundances

Convener: **Prof. Werner W. Weiss**
(*Inst. for Astronomy, Univ. of Vienna, Austria*)

$11^h30^m \div 11^h45^m$	***I. S. Savanov*** (*CrAO MESU,Ukraine*) **Analysis of stratification of Cr with depth in the atmospheres of normal and CP stars**
$11^h45^m \div 12^h10^m$	***N. Polosukhina***[1], *M. Hack*[2], *D. Kurtz*[3], *P. North*[4], *J. Zverko*[5], *J. Žižňovský*[5], *D. Shakhovskoy*[1] ([1] *CrAO MESU, Ukraine,* [2] *Trieste Univ., Italy,* [3] *Univ. of Cape Town, South Africa,* [4] *Univ. De Lausanne, Switzerland,* [5] *AI, Slovak AS, Slovakia*) **The evidence of lithium spots on the magnetic Ap stars surface**
$12^h10^m \div 12^h30^m$	***A. Shavrina***[1], *N. Polosukhina*[2], *M. Hack*[3], *P. North*[4], *J. Zverko*[5], *V. Khalack*[1], *J. Žižňovský*[5], *V. Tsymbal*[6] ([1] *MAO NASU, Ukraine,* [2] *CrAO MESU, Ukraine,* [3] *Trieste Univ., Italy,* [4] *Univ. De Lausanne, Switzerland,* [5] *AI, Slovak AS, Slovakia,* [6] *Tavrian NU, Ukraine*) **Lithium in cool magnetic CP stars. Part II. Abundance analysis of two Li "spotted" roAp stars HD 83368 and HD 60435**
$12^h30^m \div 12^h50^m$	***V. R. Khalack***[1], *Ju. N. Khalack*[2], *A. V. Shavrina*[1], *N. S. Polosukhina*[3] ([1] *MAO NASU, Ukraine,* [2] *Kyiv NU, Ukraine,*[3] *CrAO MESU, Ukraine*) **Magnetic field modeling at the CP stars**
$12^h50^m \div 13^h05^m$	*Ya. Pavlenko,* ***Yu. Lyubchik*** (*MAO NASU, Ukraine*) **Lithium abundances in atmospheres of PMS stars FN Tau and V 927**
$13^h05^m \div 13^h20^m$	*V. Burnashev*[1], ***S. Gusiy***[2] ([1] *CrAO MESU, Ukraine,* [2] *Kalinenkov AO, MSPU, Ukraine*) **Absolute energy distributions in spectra of 111 late type stars**

Session 4. Interacting binaries and pulsating variables

Convener: **Prof. Ivan L. Andronov** (*DAstr OSU, Ukraine*)

$15^h00^m \div 15^h15^m$	***E. Pavlenko*** (*CrAO MESU, Ukraine*) **Studies of X-ray novae in the Crimean Astrophysical Observatory**
$15^h15^m \div 15^h30^m$	*P. Abolmasov*[1], ***N. A. Katysheva***[2], *L. Cook*[3], *E. P. Pavlenko*[4], *S. Yu. Shugarov*[2] ([1] *Moscow Liceum No.1525,Russia,* [2] *Sternberg AI, Russia,* [3] *Center for Backyrd Astrophys., USA,* [4] *CrAO MESU, Ukraine*) **Novalike variable MV Lyr: The results of a photometric multilongitude campaign**
$15^h30^m \div 15^h45^m$	***D. E. Mkrtichian***[1] , *A. V. Kusakin*[2], *A. P. Hatzes*[3], *W. W. Weiss*[4], *E. B. Janiashvili*[5] ([1] *AO OSU, Ukraine,* [2] *GAISH Russia,* [3] *Mc Donald Obsev., USA,* [4] *Univ. of Vienna Austria,* [5] *Abastumani AO, Georgia*) **Ukraine in Astroseismological projects**
$15^h45^m \div 16^h00^m$	***A. E. Rosenbush*** (*MAO NASU, Ukraine*) **Morphology of circumstellar environment and some characteristics of circumstellar shells of stars with the R Coronae Borealis variability**
$16^h00^m \div 16^h10^m$	***V. Kryvdyk*** (*DAstr Kyiv NU, Ukraine*) **Collapsing stars magnetospheres electrodynamics**
$16^h10^m \div 16^h25^m$	*N. M. Shakhovskoy*[1], *I. L. Andronov*[2], *S. V. Kolesnikov*[3], ***A. V. Halevin***[2] ([1] *CrAO MESU,* [2] *OSU,* [3] *AO OSU*) **Flare activity in magnetic cataclysmic variables BY Cam and QQ Vul**
$16^h25^m \div 16^h35^m$	***E. Panko***[1], *A. Tarasov*[2] ([1] *AO MSPU,* [2] *CrAO MESU*) ***o* Andromedae – shell outburst 1986–1999**

$16^h35^m \div 16^h50^m$ ***V. I. Marsakova***, *I. L. Andronov (DAstr OSU, Ukraine)*
Some groups of the regularities in the cycle-to-cycle changes in the Mira variables

$16^h50^m \div 17^h00^m$ ***S. M. Andrievsky***, *V. V. Kovtyukh (AO OSU, Ukraine)*
Cepheids which are crossing the instability strip for the first time

$17^h00^m \div 17^h10^m$ ***E. S. Dmitrienko*** *(CrAO MESU, Ukraine)*
UBVRI photometry of the eclipsing symbiotic binary CI Cygni in 1996–1999 years

$17^h10^m \div 17^h20^m$ ***V. A. Zakhozhaj***, *E. F. Shaparenko (AO KhNU, Ukraine)*
Radii of nearby stars

$17^h20^m \div 17^h30^m$ ***M. Yu. Skulsky*** *(University "Lviv Polytechnika", Ukraine)*
Magnetic rotator and its evidence in the β Lyrae system

June 6–7, 2000.

P o s t e r   S e s s i o n s

Session 1–2. Flares in Late-Type stars

W4S1_P1 *I. Yu. Alekseev, R. E. Gershberg (CrAO MESU, Ukraine)*
The dependence of the BY Dra-type variable spottedness on general stellar parameters

W4S1_P2 *B. E. Zhilyaev (MAO NASU, Ukraine)*
The singular source of energy of stars

Session 3. Stellar variability and abundances

W4S3_P1 *Ya. Pavlenko[1], L. Yakovina[1], C.H.W.Duerbeck[3]*
([1] MAO NASU, Ukraine, [2] Free Univ. Brussels, Belgium)
Temporal changes of SED's of Sakurai's object V 4334 Sgr

W4S3_P2 *A. V. Shavrina[1], V. R. Khalack[1], V. Tsymbal[2], N. S. Polosukhina[3]*
([1] MAO NASU, Ukraine, [2] Tavrian NU, Ukraine, [3] CrAO MESU, Ukraine)
Surface distribution of REE elements for two roAp stars with lithium spots

W4S3_P3 *V. F. Gopka (ONU, Ukraine)*
About the heavy elements abundances in Sirius A

W4S3_P4 *V. Kuz'kov (MAO NASU, Ukraine)*
Dust and molecules envelope around of RW Cyg

Session 4. Interacting binaries and pulsating variables

W4S4_P1 *T. N. Dorokhova (AO OSU, Ukraine)*
Is VW Arietis an ellipsoidal binary?

W4S4_P2 *I. A. Usenko[1], V. V. Kovtyukh[2], V. G. Klochkova[3], V. E. Panchuk[3]*
([1] AO OSU, Ukraine, [2] SAO RAS, Russia)
Is the small-amplitude Cepheid SZ Tau a possible overtone pulsator?

Seminar. Space Plasma Physics

June 5, 2000. Monday.

Chairmen: **Prof. Adam K. Yukhimuk, Prof. Roman I. Kostik**
(MAO NASU, Ukraine)

J.-L. Bougeret[1], ***N. N. Kalinichenko***[2], *I. S. Falkovich[2], M. R. Olyak[2]*
([1] Paris-Meudon Obs., France, [2] IRA NASU, Ukraine)
Near space plasma diagnostic at extremely low frequencies

A. N. Kryshtal (*MAO NASU*)
Modified drift instabilities of inhomogeneous plasma in post-flare loops

Yu. Voitenko[1,2], *M. Goossens*[2] ([1] *MAO NASU, Ukraine,* [2] *Centre for Plasma Astrophys., Belgium*)
Kinetic Alfven turbulence and non-thermal broadening in solar flares

A. K. Yukhimuk[1], *O. K. Sirenko*[1], *Yu. Voitenko*[1,2], ***V. N. Fedun***[3] ([1] *MAO NASU,* [2] *Centre for Plasma Astrophys., Belgium,* [3] *Kyiv NU, Ukraine*)
Transformation of MHD Alfven waves in the solar atmosphere

L. F. Chernogor, ***M. Davydov*** (*KhNU*)
Perturbations in the plasma irregularity spectral density in the lower ionosphere due to energetic inputs from various physical sources

A. K. Yukhimuk[1], *O. K. Sirenko*[1], *V. A. Yukhimuk*[2], *Yu. Voitenko*[3], *V. N. Fedun*[4] ([1] *MAO NASU,* [2] *Los Alamos Nation. Lab., USA,* [3] *Centre for Plasma Astrophys., Belgium,* [4] *Kyiv NU, Ukraine*)
Parametric interaction of whistler waves and kinetic Alfven waves in the space plasmas

L. F. Chernogor, L. S. Kostrov, V. T. Rozumenko (*KhNU*)
The HF Doppler sounding of perturbations occurring naturally and due to anthropogenic influences in the near-earth plasma

K. I. Churyumov, *V. G. Ivanchuk, Yu. V. Dubrovsky, V. I. Solonenko* (*AO KNU*)
Results of astronomical and ecological observations during the total solar eclipse Aug. 11, 1999

E. P. Abranin, L. L. Bazelyan, ***V. N. Mel'nik*** (*IRA NASU*)
Radio emissions of the Sun at decameter wavelengths

V. N. Mel'nik (*IRA NASU*)
Theory of radar echoes from the Sun

V. N. Krivodubskyj (*AO KNU*)
Zone latitude structure of the global magnetic field of the Sun

V. G. Lozitsky[1], ***A. A. Soloviev***[2] ([1] *AO KNU, Ukraine,* [2] *Kalmyk StateUniv., Russia)*
Phenomenon of the superstrong magnetic field amplification in the space plasma: observations and theory

S. I. Musatenko[1], *Yu. S. Musatenko*[1], *M. M. Medvedsky*[2], *O. A. Suhyj*[1], *O. S. Slipchenko*[1], *E. V. Kurochka*[1], *V. Ya. Cholij*[1] ([1] *AO KNU,* [2] *MAO NASU*)
1/f noise of ionosphere plasma in meter wave range during solar eclipse and morning terminator passing

E. P. Abranin, L. L. Bazelyan, ***V. N. Mel'nik***, *Ya. G. Tsybko* (*IRA NASU*)
Decametric storms of the Type III bursts

V. G. Lozitsky[1], *M. Yu. Gordovsky*[2], *N. I. Lozitska*[1], *E. Golbraikh*[3] ([1] *AO KNU, Ukraine,* [2] *Kyiv NU, Ukraine,* [3] *Ben-Gurion Univ. of Negev, Israel*)
Anomalous decreasing of the turbulent velocities in space magnetoplasma with strong and small-scale magnetic fields

Yu. Kyzyurov (*MAO NASU*)
On the sensitivity of the sporadic-E irregularity spectrum to the ion composition of the layer

A. K. Yukhimuk[1], *V. N. Fedun*[3], ***O. K. Sirenko***[1], *Yu. Voitenko*[1,2] ([1] *MAO NASU,* [2] *Centre for Plasma Astrophys., Belgium,* [3] *Kyiv NU, Ukraine*)
Non-linear mechanism generation of electron acoustic waves

P. P. Malovichko (*MAO NASU*)
Non-linear three-wave interaction of kinetic Alfven waves (KAW) in the coronal loops

S. N. Osipov (*MAO NASU*)
Reflection and scattering of acoustic waves in solar atmosphere

I. E. Vasiljeva (*MAO NASU*)
The Sun among the stars

E. P. Abranin[1], *L. L. Bazelyan*[1], *V. N. Lisachenko*[1], ***N. Mel'nik***[1], *I. Ya. Alekseev*[2], *R. E. Gershberg*[2], *N. I. Shakhovskaya*[2], *A. I. Brazhenko*[3] ([1]*IRA NASU,* [2]*CrAO MESU,* [3]*Gravimetric Obs., Ukraine*)
Radio emissions of the Sun-like stars

M. I. Ryabov (*Odesa Obs., IRA NASU*)
Radio astronomical method for the analysis of the tidal phenomena in the space plasma

N. M. Kondrashova*, M. M. Pasechnik* (*AO KNU*)
The velocity field in a small flare

N. I. Lozitska[1]*, V. V. Lozitsky*[2] ([1]*AO KNU,* [2]*KNU*)
Cosmic rays influence on temperature in low atmosphere of the Earth

E. R. Venglinskij (*AO KNU*)
A method for determination of electronic concentration in dense space plasma

L. I. Tsvetkov, *M. M. Pozdnjakov, M. A. Mironov* (*CrAO*)
Station of operative forecast of solar activity using radio observations: new project

O. I. Maksimenko[1]*, V. I. Moskaljuk*[1]*, V. M. Gukov*[1], ***S. I. Musatenko***[2] ([1]*NSAU,* [2]*AO KNU*)
Solar eclipse effects on Aug 11, 1999 in midlatitude ionosphere

K. V. Alikaeva, ***S. N. Chornogor*** (*MAO NASU*)
State of plasma and motions in chromospheric and photospheric parts of flare H-alpha loops

B. A. Shakhov (*MAO NASU*)
The Fokker-Plank scattering of charged particles to the second order pitch-angle approximation

M. I. Stodilka (*AO LNU*)
Multidimensional radiation transfer in the non-uniform stellar atmospheres

L. Yankiv-Vitkovska (*AO LNU*)
Calculation of Damping Constant of Fraunhofer's Lines in Solar Atmosphere

U. Leyko (*AO KNU*)
A property of large scale solar magnetic field during long-term scales

E. Khomenko (*MAO NASU*)
Phase properties of the 5-min photospheric oscillations over granules and intergranular lanes: theory

N. G. Shchukina[1]*, J. Trujillo Bueno*[2] ([1]*MAO NASU,* [2]*IAC, Spain*)
The Iron Line Formation Problem in 3 D hydrodynamical Models of Solar-like Photospheres

V. Danylevsky (*AO KNU, Ukraine*)
The total solar eclipse photoelectric observations for the solar diameter determination