IPS 2008 - Program



09:00-09:50	Refreshments and fast track	Refreshments and fast track registration [1,2]			
	Plenary session chair: Prof. Amnon Aharony (BGU)				
09:50-10:00	Welcome: Prof. Rivka Carmi (BGU president)				
10:00-10:15	Opening and IPS prizes: Prof. Avishai Dekel (IPS pro	esident)		hall	
10:15-11:00	Plenary Lecture: Prof. Moty Heiblum (WIS), Fractionally charged quasipation	articles in the fractional quantum Ho	ıll effect.		
11:00-11:40	Registration for non-registered participants [1,2], Posters and Fairs [3]				
	Review 1 High energy and Astrophysics chair: R. Brustein (BGU)	Review 2 Quantum and Solid state physics chair: G. Deutscher (TAU)	Review 3 Biophysics and Statistical Physics chair: E. Domany (WIS)	Bldg.90	
11:40-12:10	LHC - a theorist's perspective, <u>Yossi Nir (WIS)</u>	Experimental quantum information processing - the $ \psi\rangle$ of the art, Nadav Katz (HU)	From bioinformatics to systems biology: what's the physicist's role? Eli Eisenberg (TAU)	Rooms: 90/227 92/001	
12:10-12:40	Magnetars, David Eichler (BGU)	Electronic structure of the cuprate superconducting and pseudogap states from spectroscopic imaging STM, Seamus Davis (Cornell)	Imaging physical concepts: A review of Bose-Einstein condensation, Jeff Steinhauer (Technion)	92/002	
12:40-14:00	Lunch break, Posters, Trade fair, Job fair [4], IPS council meeting [5]			Campus	
14:00-16:00	Parallel sessions A				
16:00-16:30	Coffee break			Bldg. 90	
16:30-18:30	Parallel sessions B				

- [1] Fast track registration is intended for those who have registered in advance and filled the payment webform.
- [2] There will be 6 PC stands available for web browsing, as well as wireless network coverage for guests.
- [3] Posters and fairs are expected to be available earliest at 11:00 at the 2nd and 1st floor lobbies of Bldg.90.
- [4] Posters and fairs are expected to be available from 12:40 till 18:30.
- [5] The IPS Council will be held at room 90/129, during 12:45-13:45.

IPS 2008 - Parallel Sessions



List of the parallel sessions

	Parallel Session	Room	Chair	Assistant
	A1. Solid state physics - superconductivity I	92/001	Jorge Berger (Ort Braude)	Barboy, Ilan
	A2. Solid state physics - nanophysics I	02/002	Efrat Shimshoni (BIU)	Machluf, Shimon
	A3. Soft condensed matter and biophysics	90/227	Yitzhak Rabin (BIU)	Gilboa, Barak
	A4. Statistical physics I	90/226	Ron Lifshitz (TAU)	Shusterman, Olga
14:00-16:00	A5. Quantum physics	90/224	Avraham Schiller (HUJI)	Aviv, Gal
	A6. Optics	90/222	Yaron Silberberg (WIS)	Golan, Amir
	A7. High energy physics I	90/223	Barak Kol (HUJI)	Levy, Daniel
	A8. Astrophysics I	90/230	Rennan Barkana (TAU)	Barzilay, Yudith
	A9. Non-linear physics	90/225	David Kessler (BIU)	Kletter, Assaf
	<u>B1.</u> Solid state physics - superconductivity II	92/001	Amit Keren (Technion)	Erez, Amir
	B2. Solid state physics - nanophysics II	92/002	Yuval Gefen (WIS)	Moshe, Ofer
	B3. Biophysics	90/227	Oleg Krichevsky (BGU)	Maman, Nizan
16:30-18:30	B4. Statistical physics II	90/226	Ron Lifshitz (TAU)	Shusterman, Olga
10.30-18.30	<u>B5.</u> Solid state physics - magnetic and electric properties	90/224	Alexander Gerber (TAU)	Levy, Roi
	B6. Plasma physics	90/222	Michael Mond (BGU)	Haim, Lev
	B7. High energy physics II	90/223	Barak Kol (HUJI)	Ben-Dayan, Ido
	B8. Astrophysics II	90/230	Rennan Barkana (TAU)	Barzilay, Yudith

A1. Solid state – superconductivity I chair: J. Berger (Braude) Assistant: Barboy, Ilan Room: 92/001

#	Time	Speaker	Title
1	14:00	Keren Amit	Experimental investigation of the coupling between magnetic and superconducting order parameters in underdoped LSCO thin films
2	14:13	Golubchik Daniel	Magneto-optical imaging of phase transitions out of equilibrium
3	14:25	Barness Doron	Magnetic flux oscillations in partially irradiated Bi ₂ Sr ₂ CaCu ₂ O _{8+x} crystals
4	14:37	Leibovitch Guy	Bean-Livingstone barrier enhancement on nodal surface of the d-wave superconductor YBa2Cu3O7-x
5	14:49	Kraus Kobi	Observing Majorana Zero Modes in a Px+iPy Superconductor at High Temperature by Tunneling Spectroscopy
6	15:01	Shwartz Eli	Vortex annihilation effect on ac magnetic response in type-II superconductors
7	15:13	Dvash Eyal	Dendritic Instability of Magnetic Flux in Anisotropic Type-II Superconducting Slab.
8	15:25	Meidan Dganit	Superconductor insulator transition in thin films driven by an orbital parallel magnetic field effect
9	15:37	Ovadia Maoz	The superconductor-insulator transition: is there a new insulating state?
10	15:49	Zaberchik Moran	Properties of superconducting TiSe ₂ Cu _X

A2. Solid state – nanophysics I *chair:* E. Shimshoni (BIU)

Assistant: Machluf, Shimon

Room: 92/002

#	Time	Speaker	Title
1	14:00	<u>Ilani Shahal</u>	Coupling of Spin and Orbital Motion of Electrons in Ultra-Clean Carbon Nanotubes
2	14:25	Bid Aveek	Fabry-Perot interferometer in the Quantum Hall regime
3	14:37	Levy Shai	Electric properties of a MOS structure containing nano-crystalline Ge imbedded into a thick SiO ₂ film
4	14:49	Machluf Shimon	A novel atom trap based on a carbon nano-tube
5	15:01	Stotland Alexander	Semilinear response for the heating rate of cold atoms in vibrating traps
6	15:13	Steiner Dov	Electronic level structure of semiconductor nanocrystals in 2D arrays and in core/shell heterostructures
7	15:25	Lewkowicz Meir	Dynamics of the particle-hole pair creation in suspended graphene
8	15:37	Freilikher Valentin	Transport and localization in periodic and disordered graphene superlattices
9	15:49	Shafir Oren	Electromagnetic radiation emanating from the molecular nanomagnet Fe8

A3. Soft Condensed matter and biophysics chair: Y. Rabin (BIU) Assistant: Gilboa, Barak

toon	1: 90/221		
#	Time	Speaker	Title
1	14:00	Diamant Haim	Critical swelling of fluctuating capsules
2	14:25	Frydel Dariusz	Short time Dynamics in Quasi-One-Dimensional (Q1D) Colloidal Suspension
3	14:37	Shlomovitz Roie	Curved inclusions surf membrane waves.
4	14:49	Lindner Moshe	Novel 3D Tethered Particle Motion (TPM)
5	15:01	Granek Rony	Active Transport on Disordered Microtubule Networks: The Generalized Random Velocity Model
6	15:13	Nir Guy	Studying the interactions of a single enzyme and DNA using tethered particle motion method (TPM)
7	15:25	Naoz Moshe	A physical model of cellular "feet"
8	15:37	Rappaport Shay. M	Model of DNA Bending by Cooperative Binding of Proteins

A4. Statistical Physics I chair: R. Lifshitz (TAU)

Assistant: Shusterman, Olga

Room: 90/226

#	Time	Speaker	Title
1	14:00	Taitelbaum Haim	Reactive-Wetting in Room Temperature: Bulk Spreading and Interface Kinetic Roughening
2	14:25	Rotman Ziv	Slow dynamics and glassiness in a lattice model
3	14:37	Gupta Shamik	Dynamics of fluctuations in driven diffusive systems: Finite-size effects
4	14:49	Veksler Alexander	Generalized fractional Fokker-Planck equation for anomalous diffusion
5	15:01	Roichman Yael	Crossover from sub-diffusion to super-diffusion in a tilted washboard potential
6	15:13	Maruvka Yosef	Polymorphism data may reveal the origin of species abundance statistics. Is it natural selection? or genetic drift?
7	15:25	Yaari Gur	In Random Multiplicative Environments – Charity Pays Off.
8	15:37	Kenett Dror	The stock market as a complex adaptive system - the functional role of the index

A5. Quantum Physics chair: A. Schiller (HU)

Assistant: Aviv, Gal Room: 90/224

#	Time	Speaker	Title
1	14:00	Doucot Benoit	Physical implementation of protected qubits
2	14:25	Aviv Gal	Bloch Qbit Multiphoton Coherent Manipulations of an Atomic Two-State System
3	14:37	Shahmoon Ephraim	Qubit Coherent Control with Squeezed Light Fields
4	14:49	Panich Alexander	73Ge nuclear spin decoherence and germanium-based quantum computer
5	15:01	Amusia Miron	Interference resonances in endohedral atoms
6	15:13	Kot Eran	Coherent Scattering of a Single Atom by Localized BEC in Optical Lattice
7	15:25	Chuchem Maya	Dynamics of condensed Bose particles in a driven few site system, and the many body Landau-Zener transition
8	15:37	Etzioni Yoav	Particle Dynamics on a Ring Affected by Noisy Environments
9	15:49	Waxman Amir	Modulation Enhancement of a Laser Diode in an External Cavity

A6. Optics
chair: Y. Silberberg (WIS)
Assistant: Golan, Amir

Room: 90/222

#	Time	Speaker	Title
1	14:00	Cohen Oren	Optically-induced quasi-phase-matching in high-harmonic generation
2	14:25	Natan Adi	Strong field photodissociation control of ${\rm H_2}^+$ with chirped laser pulses
3	14:37	Golan Amir	Raman Spectral Signatures as Conformational Probes of Biomolecules
4	14:49	Kapilevich Boris	THz Characterization of Lossy Materials Using Multi-Layers Measuring Cell
5	15:01	Pugatch Rami	Universal Spectra of Coherent Random Recurrence
6	15:13	<u>Fridman Moti</u>	Fiber Lasers with Increase Output Brightness
7	15:25	Grinvald Eran	Photonic crystal approach to guided mode resonance
8	15:37	Gersten Alexander	The mystery of the connection between the photon wave function and Maxwell's equations

A7. High energy physics I chair: B. Kol (HU) Assistant: Levy, Daniel Room: 90/223

#	Time	Speaker	Title
1	14:00	Stelle Kelly	Is N=8 Supergravity Finite?
2	14:40	Brandhuber Andreas	Hidden structures in gauge theory and gravity
3	15:20	Bringoltz Barak	Lattice explorations of QCD flux-tubes/strings, and their large-N limit

A8. Astrophysics I chair: R. Barkanna (TAU)

Assistant: Barzilay, Yudith

Room: 90/230

#	Time	Speaker	Title
1	14:00	Nakar Ehud	Studying gamma-ray bursts with the Fermi observatory
2	14:25	Katz Boaz	The energy production rate & the generation spectrum of UHECRs
3	14:37	Naoz Smadar	Detecting the first generation of galaxies through their 21-cm signature
4	14:49	Woo Joanna	Environment and Star Formation
5	15:01	Perets Hagai	On the triple origin of blue stragglers
6	15:13	Polishook David	Spin Rate Distribution of Small-Sized Main Belt Asteroids
7	15:25	Lemze Doron	Are large bound objects easy to study? - not for sure!
8	15:37	Zinger Elad	The Role of Gas Streams in the Formation and Structure of Galaxy Clusters

A9. Non-linear physics *chair:* D. Kessler (BIU)

Assistant: Kletter, Assaf

Time	Speaker	Title
16:30	Rubinstein Shmuel M.	Triggering and control of stick-slip friction
16:55	Efrati Efi	Elastic theory of unconstrained non-Euclidean plates and shells
17:07	Kletter Assaf	Periodic and scale-free patterns: reconciling the dichotomy of dryland vegetation
17:19	Yochelis Arik	Selection of periodic and localized states in Reaction-Diffusion-Advection systems
17:31	Kenig Eyal	Pattern selection in parametrically-driven arrays of nonlinear resonators
17:43	Yaakobi Oded	Multidimensional, autoresonant three-wave interactions
17:55	Nathan Jonathan	Modeling community-level properties of vegetation in a water limited system.
	16:30 16:55 17:07 17:19 17:31 17:43	16:30 Rubinstein Shmuel M. 16:55 Efrati Efi 17:07 Kletter Assaf 17:19 Yochelis Arik 17:31 Kenig Eyal 17:43 Yaakobi Oded

B1. Solid state – superconductivity II chair: A. Keren (Technion)

chair: A. Keren (Technion)
Assistant: Erez, Amir
Room: 92/001

#	Time	Speaker	Title
1	16:30	Lindner Netanel	Vortex quantum dynamics of two dimensional lattice bosons
2	16:55	Bary-Soroker Hamutal	Effect of Pair Breaking on Mesoscopic Persistent Currents Well above the Superconducting Transition Temperature
3	17:07	Erez Amir	How to determine Tc for disordered superconducting films
4	17:19	Goren Lilach	Enhancement of the superconducting transition temperature in cuprate heterostructures
5	17:31	Michaeli Karen	Fluctuations of the superconducting order parameter as an origin of the Nernst effect
6	17:43	Diamant Itay	Are cuprates BCS superconductors?
7	17:55	Almog Boaz	Observation of Andreev Saint-James reflections in nano-scale planar superconductor To ferromagnet contacts
8	18:07	Lindenfeld Ze'ev	Pairing interaction in ultra-small nano-particles

B2. Solid state – nanophysics II

chair: Y. Gefen (WIS) Assistant: Moshe, Ofer Room: 92/002

#	Time	Speaker	Title	
1	16:30	Sonin Edouard	Gauge-field rotation of electrically polarized Bose condensate due to Aharonov-Bohm effect	
2	16:43	Puller Vadim	Breaking of Phase Symmetry in Non-Equilibrium Aharonov-Bohm Oscillations through a Quantum Dot	
3	16.55	Goldstein Moshe	Interacting resonant level side-coupled to a Luttinger liquid: Duality to resonant tunneling	
4	17:07	Goberman Dotan	Shot noise and noise power spectrum for tunneling through a quantum dot in the Kondo regime	
5	17:19	Rothstein Eitan	The noise spectra of a biased quantum dot	
6	17:31	Ringel Zohar	Delayed currents and interaction effects in mesoscopic capacitors.	
7	17:43	Bitton Liora	Controllable Metallic Quantum Dot	
8	17:55	Moshe Ofer	Perturbing GaN/AlN quantum dots with uniaxial stressors	
9	18:07	Sela Itamar	Quantum Stirring of electrons in low dimensional devices	

B3. **Biophysics** *chair:* O. Krichevsky (BGU) Assistant: Maman, Nizan

Room: 90/227

#	Time	Speaker	Title	
1	16:30	Bar-Ziv Roy	Towards Synthetic Gene Systems on a Chip	
2	16:55	Garini Yuval	Spatial and temporal organization of telomeres in the nucleus	
3	17:07	Altman Liat	Studying single gene transcription by autocorrelation analysis	
4	17:19	Feingold Mario	Cell Shape Dynamics with Sub-pixel Accuracy	
5	17:31	Friedlander Tamar	Adaptive response from state-dependent inactivation	
6	17:43	Labin Moshe	Vision effects caused by glial cells in the retina	
7	17:55	Ankri Rinat	Estimation of the Optimal Wavelengths for Low-Level-Laser Therapy in Skin Tissue	
8	18:07	Doron Itai	Mapping and assessment of epileptogenic foci using frequency-entropy templates	

B4. **Statistical Physics II** *chair:* R. Lifshitz (TAU)

Assistant: Shusterman, Olga

#	Time	Speaker	Title
1	16:30	Ben-Abraham Shelomo I	Crystals and beyond
2	16:43	Amir Ariel	Diffusion of a quantum particle in a time-correlated noisy environment
3	16.55	Assaf Michael	Spectral theory and WKB approximation for population quasi-stationarity and extinction
4	17:07	Efraim Hadar	Dual-Transceiver Quantization Can Improve Error Performance in CDMA

B5. Solid State – Magnetic and electric chair: A. Gerber (TAU)

Assistant: Levy, Roi Room: 90/224

#	Time	Speaker	Title
1	16:30	Wachtel Gideon	Inhomogeneous phases in a double-exchange magnet with long range Coulomb interactions
2	16:43	Naftalis Netanel	Anisotropic magnetoresistance and planar Hall effect in Manganites: The role of crystal symmetry effects
3	16.55	Golosov Denis	Two-fluid behaviour at the origin of the resistivity peak in doped manganites
4	17:07	Kanzieper Eugene	Integrable theory of quantum transport in chaotic cavities
5	17:19	Strelniker Yakov	Manipulating the optical transparency of meta-materials with a strong magnetic field
6	17:31	Seri Snir	Transport properties of Ar ⁺ irradiated SrTiO ₃
7	17:43	Shperber Yishai	Field induced resistivity anisotropy in SrRuO ₃ films
8	17:55	Levy Roi	Quantum Hall Insulator
9	18:07	Ben Shalom Moshe	Anomalous magneto-transport properties of a two dimensional electron gas formed at the interface between the insulators SrTiO3 and LaAlO3
10	18:19	Rosenblatt Daniel Pablo	Extraordinary Hall effect in thin Co-Pd multilayers

B6. Plasma physics chair: M. Mond (BGU)
Assistant: Haim, Lev Room: 90/222

Koon	00m: 90/222				
#	Time	Speaker	Title		
1	16:30	Fruchtman Amnon	The blue mode in Helicon plasma		
2	16:55	Alumot Dror	Determination of the spatial distribution of the properties and size of plasma at stagnation		
3	17:07	Dyunin Egor	A new THz FEL Development Project		
4	17:19	Pinhasi Yosef	Space-frequency model for pulsed beam free-electron laser operating in the space-charge (collective) dominated regime		
5	17:31	Barth Ido	A water bag model of driven phase space holes in non-neutral plasmas		
6	17:43	Sarid Eli	Antihydrogen formation and trapping		
7	17:55	Yahalom Asher	Non-Stationary Barotropic Magnetohydrodynamics as a Four Function Field Theory		

B7. **High energy physics II** *chair:* B. Kol (HU)

Assistant: Ben-Dayan, Ido

Room: 90/223

#	Time	Speaker	Title	
1	16:30	Yigal Shamir	Lattice gauge theory meets technicolor	
2	16:43	Vivek Kumar	Evolution of Nuclear Shape in the Light Radon Isotopes	
3	16.55	Ben-Dayan Ido	Phenomenological Consequences of Modular Inflation	
4	17:07	Blum Kfir	Beyond MSSM Baryogenesis	
5	17:19	Sadeh Iftach	Luminosity Measurement at the International Linear Collider	
6	17:31	Boaz Karni	Crystal Structure in High Dimensions	
7	17:43	Hochberg Yonit	Splitting the Wino Multiplet by Higher-Dimensional Operators in Anomaly Mediation	
8	17:55	Stern Amir	Measurement of the energy dependence of the total photon-proton cross-section at HERA	
9	18:07	Stern Merav	Corrected Charged Black Strings	

B8. Astrophysics II chair: R. Barkanna (TAU)

Assistant: Barzilay, Yudith

#	Time	Speaker	Title	
1	16:30	Shporer Avi	Searching For and Studying Transiting Extrasolar Planets	
2	16.55	Myers Zacharia	Neutrino Signatures of Dark Matter Annihilation in the Galactic Disc	
3	17:07	Shaham Alon	Rotational Properties of the Maria Asteroid Family	
4	17:19	Ofir Aviv	An Algorithm For The Detection Of Transiting Circumbinary Planets	

IPS 2008 - Posters



List of Posters sorted by topic.

- #01 Quantum physics
- #02 Statistical physics and complex systems
- #03 Solid state physics (theoretical)
- #04 Solid state physics (experimental)
- #05 Optics and photonics
- #06 Particle and nuclear physics
- #07 Plasma physics
- #08 Astrophysics and cosmology
- #09 Biological and soft condensed matter physics
- #10 Medical physics
- #11 Non-linear physics
- #00 Other

Location: Bldg.90, 2nd floor lobby

Assistants: Maya Chuchem and Eitan Rothshtein

#	Submitted by	Topic Category	Poster title
		Category	
1	Bavli Pavel	#00-1	Bulk and surface melting HCP crystal - magnesium
2	Pine Polina	#00-1	Vibrational analysis of thermal oscillations of SWCNT
3	Amusia Miron	#01-1	Modification of the Koester-Kronig decay in endohedral atoms
4	Brandhuber Andreas	#01-1	Hidden structures in gauge theory and gravity
5	Glickman Yinnon	#01-1	Quantum Information studies with trapped ions and flying photons
6	Amitai Assaf	#02-1	Anomalous diffusion of a monomer between absorbing boundaries
7	Amusia Miron	#02-1	Fermion condensation: a strange idea successfully explaining behavior of numerous objects in Nature
8	Amusia Miron	#02-1	Common quantum phase transition in strongly correlated Fermi systems
9	Efraim Yael	#02-1	Persistence in Reactive-Wetting Interfaces
10	Harel Meital	#02-1	The Effect of Temperature on the Dynamics and Geometry of Reactive-Wetting Interfaces
11	Mints Roman	#03-1	High-field vortices in dense chains of 0 and \pi shifted Josephson junctions
12	Yahalom Asher	#03-1	Covariant formulation of the dynamics in a dissipative quantum dielectric obtained from a simplified Lagrangian
13	Barness Doron	#04-1	Anisotropy induced pattern formation by thermomagnetic instability on interface separating regions of different voltage-current characteristics in Bi ₂ Sr ₂ CaCu ₂ O _{8+δ} crystals
14	Gerber Alexander	#04-1	Magnetization driven metal – insulator transition in strongly disordered magnetic semiconductors.

15	Levi Daniel	#04-1	Enhancement of disordered metastable vortex states in Bi ₂ Sr ₂ CaCu ₂ O _{8+x} crystals by columnar defects
16	Levy Shai	#04-1	Electric properties of a MOS structure containing nano-crystalline Ge imbedded in a thick SiO ₂ film
17	Levy Shai	#04-1	Electric properties of a MOS structure containing nano-crystalline Ge imbedded into a thick SiO ₂ film
18	Shelukhin Victor	#04-1	Induced magnetization due to inverse proximity effect in S/F bilayers
19	Aharoni Herzl	#05-1	A performance comparison of three terminal and four terminal monolithically integrated silicon light emitting devices (SiLEDs)
20	Axelevitch Alex	#05-1	Photovoltaic Laboratory Tester
21	Bruma Cezar	#05-1	Building and Testing Small Diode Pumped Solid State Nd:YVO4 Laser
22	Gusarov Alexander	#05-1	3D multi-channel atomic magnetometer for bio-magnetism
23	Nusinsky Inna	#05-1	Approximate analytical model for two-dimensional photonic crystal
24	Samelsohn Gregory	#05-1	Diffuse time tomography of random heterogeneous materials
25	Yahalom Asher	#05-1	RF Transmission through multiple layers
26	Chen Or	#06-1	Using Geant4 based simulations in Positron Annihilation Spectroscopy experiments
27	Hirsh Tsviki	#06-1	Intense Production of Light Radioactive Beams for Astrophysics and Neutrino Physics using Secondary Fast Neutrons
28	Beilis Itzhak	#07-1	Aluminum film deposition by an expanding plasma from a Hot Refractory Anode Vacuum Arc
29	Molcho Jonathan	#07-1	Plasma-Lined Linac of Super-High Acceleration Gradient
30	Yarmolich David	#07-1	Phenomena of non-complete ferroelectric surface discharge
31	Farbiash Netzach	#08-1	The Physics of Modification of the Maxwell-Boltzman Velocity Distribution
32	Sarid Gal	#08-1	Thermal evolution of planetesimals beyond the "snow-line"
33	Sarid Gal	#08-1	Methane and ice water retention in large Kuiper belt objects
34	Yahalom Asher	#08-1	The Geometrical Meaning of Time
35	Bubis Roy	#09-1	Statistical properties of polymers attached to hard probes
36	Chaniel Gilad	#09-1	Microdrilling of polymer films.
37	Madi Asaf	#09-1	Immune Holography: System-Level Analysis of Immunological States
38	Oppenheimer Naomi	#09-1	Correlated diffusion of membrane proteins and their effect on membrane viscosity
39	Shamir Maoz	#09-1	Fast readouts mechanisms in the Central Nervous System: The temporal-Winner-Take-All

40	Shusterman Olga	#09-1	Two-Photon Polymerization of Polydiacetylene
41	Tamam Lilach	#09-1	X ray studies of Langmuir films of Chiral Molecules on Liquid Mercury
42	Biton Yaacov	#10-1	New mechanisms of spiral-pair-source creation in excitable media
43	Grinberg Oni Adar	#10-1	Monytoring cryotherapy with interventional MRI - feasibility studies of umbilical cord
44	Salman Ahmad	#10-1	Study of early spectral changes in cellular malignant transformation using FTIR-microspectroscopy
45	Zwielly Amir	#10-1	Advanced Statistical Techniques Applied to FTIR spectra of human Colon Cancer and Polyps
46	Dekel Gali	#11-1	Non-Linear Dynamics of BEC Macroscopic tunneling.
47	Nixon Micha	#11-1	Enhancing Synchronization of Chaotic Fiber Lasers