



**Department of Mechanical Engineering
at Ben Gurion University of the Negev
and Israel Plasma Science and Technology Association**

Invite you to

The 18th Israeli Conference on Plasma Science and its Applications

**Wednesday, March 2, 2016
Building 98, Auditorium 001
Ben Gurion University of the Negev**

9:15	Registration	
9:45	Opening Remarks	
Morning Session 1, 10:00-11:40		
10:00	Invited: F. Skiff	Experiments on the kinetic degrees of freedom of electrons and ions
10:40	G. Shafir, M. Siman Tov, D. Zolotukhin, A. Shlapakovski, Yu. Bliokh, V. Godyak, V. Rostov, A. Fisher, R. Gad, J. Leopold, Y. Hadas and Ya. E. Krasik	Advancement in wakefield formation in plasma by a high power microwave pulse
11:00	H. R. Strauss	JET disruption simulations
11:20	A. Yahalom	Simplified Lagrangian and Hamiltonian of non-barotropic MHD
11:40	Coffee Break	
Morning Session 2, 12:15-13:35		
12:15	M. Gedalin	Collisionless relaxation in the shock front
12:35	L. Ofman	Turbulence, instabilities, and heating of the solar wind plasma
12:55	N. K. Dwivedi, P. Kovacs and M. Mond	Magnetic field turbulence spectra and associated power law of the Venusian magnetosheath
13:15	U. Keshet	Magnetization and particle acceleration in collisionless astronomical shocks
13:35	Poster Session and lunch	

For more information please visit the Conference website:
<http://in.bgu.ac.il/en/engn/me/plasma-conf>



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Afternoon Session 1, 14:45-16:25

14:45	Invited: S. Eliezer	Novel physics with relativistic shock waves in the laboratory
15:25	D. Mikitchuk, M. Cvejic, E. Kroupp, R. Doron, C. Stollberg, Y. Maron, H. R. Strauss, A. L. Velikovich, J. L. Giuliani	Magnetic field evolution in Z-pinch implosion with preembedded axial magnetic field
15:45	A. Gover and R. Iancu	Fundamental processes of radiation emission from bunched electron Beam
16:05	A. Fruchtman and G. Makrinich	Helicon plasma thruster – an opportunity and a challenge
16:25	Coffee Break	

Afternoon Session 2, 16:50-18:30

16:50	E. Jerby and Y. Meir	Microwave ignition of thermite reactions and dusty plasmas
17:10	N. Balal, V.L. Bratman, Yu. Lurie, and A.V. Savilov	Negative mass instability in sources of coherent spontaneous undulator radiation
17:30	Impedans Ltd.	Measuring plasma parameters in electrical discharges using rf current and voltage measurements
17:50	D. B. Zolotukhin, V. A. Burdovitsin and E. M. Oks	Plasma generated by continuous electron beam injected inside the dielectric flask
18:10	A. Shlapakovski, S. Gorev, and Ya. E. Krasik	Influence of laser beam parameters on output pulses of a high-power microwave compressor with a laser-triggered plasma switch
18:30	Concluding Remarks	

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POSTERS

1.	A. Meirovich, N. Parkansky, R. L. Boxman, O. Berkh	Possibility of submerged pulse arc treatment of wastewater with organic contaminates in multi-electrode reactor
2.	D. Lev, G. Alon, A. Warshavsky and L. Appel	Low current heaterless hollow cathode R&D at Rafael
3.	G. Makrinich and A. Fruchtman	Electric force and ambient gas pressure
4.	G. Shafir, D. Zolotukhin, A. Shlapakovski, V. Godyak, A. Fisher, R. Gad, and Ya. E. Krasik	A large-scale uniform plasma system for microwave wakefield experiments
5.	G. Shafir, M. Siman Tov, D. Zolotukhin, A. Shlapakovski, Yu. Bliokh, V. Rostov, A. Fisher, R. Gad, J. Leopold, Y. Hadas and Ya. E. Krasik	A high power, short pulse, microwave source for wakefield experiment
6.	H. Marks, A. Gover, D. Borodin, Y. Lurie	Saturation Dynamics, Output Power Optimisation, and Chirp Control in a CW FEL Oscillator
7.	I.I. Beilis, Y. Koulik and R.L. Boxman	Anode temperature evolution in a vacuum arc with a black body electrode configuration
8.	J. G. Leopold, A. S. Shlapakovski, A. Sayapin and Y. E. Krasik	The A6 relativistic magnetron revisited
9.	L. Bareket, L. Inzelberg, M. David-Pur, D. Rand, D. Rabinovich, and Y. Hanein	Electronic tattoos with a plasma polymerized coating for human-machine interface and biopotential monitoring
10.	M. Siman Tov	Explosive emission cathodes as a source for hollow high-current electron beam, applied for microwaves generation in a backward wave oscillation
11.	R. Ben Moshe, V. Bratman and M. Einat	Design of a fourth-harmonic large-orbit gyrotron
12.	S. Biswas, R. Doron, V. Bernshtam, Y. Maron, M. D. Johnston, M. L. Kiefer, M. E. Cuneo	Determination of the plasma composition using blended Stark-Broadened emission lines in a self-magnetic pinch diode
13.	T. Queller, E. Kroupp, D. Naimark, A. Fisher and Y. Maron	Determination of the initial 2D gas density distribution used for plasma implosion experiments by both interferometry and Laser Induced Fluorescence (LIF) measurements

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