

The 20th Israeli Conference on Plasma Science and its Applications (IPSTA 2018)
Tel-Aviv University, 29th Jan. 2018

#	Time	Lecturer and co-authors	Title	Type	Organization
	08:00– 08:45	Registration			
	8:45 – 12:00	Morning session			
1	8:45 – 09:20	<u>Francesco Taccogna</u>	Negative ion source for ITER NBI system	Invited	P.Las.M.I. lab, Particle-based plasma model (PBPM) group, CNR-Nanotec, Bari, Italy
2	9:20 – 9:35	<u>Pierre-Louis Sulem</u> T. Passot, D. Laveder	Fluid modeling of sub-ion turbulence in space plasmas	Oral	UCA, CNRS, Observatoire de la Côte d'Azur, Boulevard de l'Observatoire, CS 34229, 06304 Nice Cedex 4, France and Aix Marseille Univ, Univ Toulon, CNRS, CPT, Marseille, France
3	9:35 – 9:50	<u>Michael J Touati</u> F. Tsung, V. K Decyk, W. B Mori	How can one use PIC simulations to study microscopic plasma phenomena?	Oral	Department of Electrical Engineering / Physics and Astronomy, University of California in Los Angeles, Los Angeles, USA
4	9:50 – 10:05	<u>Guy Shafir</u> Y. P. Bliokh, D. Levko, J. G. Leopold, Ya. Cao, A. Fisher, Ya. E. Krasik	Ionization self-channeling of high power microwaves in a neutral gas	Oral	Physics Department, Technion, Haifa 32000, Israel; Department of Aerospace Engineering and Engineering Mechanics, University of Texas, Austin, Texas 78712, USA
5	10:05 – 10:20	<u>Amnon Fruchtman</u> and G. Makrinich	The Hall thruster in the ion-neutral collision regime	Oral	Holon Institute of Technology, Holon 58102, Israel
6	10:20 – 10:35	<u>Ramy Doron</u> D. Mikitchuk, M. Cvejić, C. Stollberg, T. Queller, G. Rosenzweig, S. Biswas, E. Kroupp, E. Stambulchik, V. Fisher, A. Starobinets, Y. Zarnitsky, V. Bernshtam,	Challenges in Spectroscopic Analysis of High-Energy-Density Plasmas	Oral	Faculty of Physics, Weizmann Institute of Science, Rehovot 76100 Israel

		O. Nedostup, V. Litmanovich and Y. Maron			
	10:35– 11:00	Coffee break			
7	11:00 – 11:15	<u>Asher Yahalom</u>	A Three Function Variational Principle for Stationary Non-Barotropic Magnetohydrodynamics	Oral	Department of Electrical & Electronic Engineering, Faculty of Engineering, Ariel University, P.O.B. 3, Ariel 40700 ISRAEL
8	11:15 – 11:30	<u>Yaakov Sharabani</u> I. Shafir, S. Zoran, A. S. Kesar, D. Eger	Solid State Opening Switch for Pulsed Power Based on Reverse Recovery in Diodes	Oral	Department of Solid State Physics, Soreq NRC, Yavne 81800, Israel
9	11:30 – 11:45	<u>Amit S. Kesar</u> and Ya. Sharabani	A Compact, 10-kV, 2-ns Rise-Time Pulsed-Power Circuit Based on Off-The-Shelf Components	Oral	Applied Physics Division, Soreq NRC, Yavne 81800, Israel
10	11:45 – 12:00	<u>Pavel Komm</u> ¹ Y. Deng ² , Zh. Zeng ³ , Zh. Jia ³ , Y. Zheng ³ , X. Ge ² and R. Li ³ , G. Marcus ¹	K-shell and L-shell Excitations of Nobel Atoms by Inelastic Electron Recollision	Oral	¹ Department of Applied Physics, Benin School of Engineering and Computer Science, Hebrew University of Jerusalem, Jerusalem 91904, Israel; ² SwissFEL, Paul Scherrer Institut, 5232 Villigen PSI, Switzerland; ³ State Key Laboratory of High Field Laser Physics, Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, Shanghai 201800, China
	12:00 - 13:00	Lunch			
	13:00– 14:00	Poster Session			

1	Isaac I. Beilis Y. Yankelevich, R.L. Boxman	Plasma Source with Double Anode Vacuum Arc	Electrical Discharge and Plasma Laboratory, Tel Aviv University, P. O. B. 39040, Tel Aviv 69978, Israel
2	Yang Cao G. Shafir, Ya. Krasik	Characterization of plasma source for plasma wakefield research	Faculty of Physics, Technion, Technion City, Haifa 3200003, Israel
3	Christine Stollberg ¹ Eal Kroupp ¹ , D. Mikitchuk ¹ , M. Cvejic ¹ , R. Doron ¹ , E. Stambulchik ¹ , Y. Maron ¹ , and J.L. Giuliani ²	Measurements of the magnetic-field and plasma-density distributions in a current-driven plasma channel	¹ Weizmann Institute of Science, Rehovot 76100, ISRAEL; ² Plasma Physics Division, Naval Research Laboratory, Washington, DC 20375, USA
4	Meytal Siman Tov J. G. Leopold, S. Gleizer, Ya. E. Krasik	Generation of Space Charge Self-Oscillations in a diode by Over-Injection	Physics Department, Technion, Haifa, 3200003, Israel
5	Alexander Rososhek and Ya. E. Krasik	Phase transitions in Tungsten, Molybdenum and Tantalum	Physics Department, Technion, Haifa, 3200003, Israel
6	Marko Cvejić ¹ D. Mikitchuk ¹ , R. Doron ¹ , E. Kroup ¹ , Y. Maron ¹ , A. L. Velikovich ² , J. L. Giuliani ² , E. P. Yu ³	Spectroscopic measurements of z-pinch implosion with pre-embedded axial magnetic field	¹ Weizmann Institute of Science, Rehovot 76100, ISRAEL; ² Plasma Physics Division, NRL, Washington, DC 20375, USA; ³ SNL, P.O. Box 5800, Albuquerque, New Mexico 87185-1186, USA
7	Anton Ronis and I. Kronhaus	Electrical Characterization of Cathodic Arc Actuator Operation	Faculty of Aerospace Engineering, Technion, Haifa 3200003, Israel
8	Gennady Makrinich and A. Fruchtman,	Hall Thruster Operation on Ambient Gas	Holon Institute of Technology, Holon 58102, Israel
9	Mikhail Nitishinskiy , A. Virozub, D. Yanuka, Ya. E. Krasik	Recent progress in hard X-ray imaging of exploding wires	Physics Department, Technion, Haifa, 32000 ISRAEL
10	Omer kovalsky P. Ben Ishai, A. Abramovich, A. Friedman	THz Time Domain Spectroscopy based on Optical Rectification and Electro-Optic Sampling	Ariel University, Israel
11	Michael Khorosh E. Dyunin, J. Rodnizki	SARAF Rebuncher	Ariel University, Ariel, Israel, Soreq NRC SARAF, Yavne, Israel

12	Amir Weinberg I. Dyunin, A. Friedman	Cavity Beam Position Monitor for the novel Hybrid RF-gun in Ariel University	Schlesinger center for compact Accelerator and Radiation Sources FEL, Ariel University, Israel		
13	Y. Lazra, E. Bormashenko, R. Cahan	Effect of corona plasma on the morphology and physiology of soil bacteria	Department of Chemical Engineering and Biotechnology, Ariel University, Ariel, Israel		
14	Adi Hanuka N. Cohen, L. Schachter	Electromagnetic Wiggler for X-ray Generation	Department of Electrical Engineering, Technion – Israel Institute of Technology, Haifa 32000, Israel		
15	Adi Hanuka and L. Schachter	Transverse Dynamics in an Optical Booster	Department of Electrical Engineering, Technion – Israel Institute of Technology, Haifa 32000, Israel		
16	Sharona Atlas A. Kaplan, O. Klein-BenDavid, H. Raveh-Amit, N. Banano, A. Ben-Shabat, G. Bar-Nes, A. Raveh	Low Pressure Plasma as a Complementary Process for Thermal Waste Treatment	NRC - Negev, Department of Chemistry, P.O.Box 9001, Beer-Sheva, 84190, Israel		
17	Dan Lev J. Herscovitz, L. Appel, S. Schielder	Overview of Electric Propulsion Activities at Rafael	Rafael, Advanced Defense Systems Ltd, Haifa, 3102102, Israel		
	14:00 - 17:00	Afternoon session			
1	14:00 – 14:35	Avraham Gover and Y. Pan	History-dependent stimulated radiative interaction of a Free Electron	Invited	Department of Electrical Engineering Physical Electronics, Tel Aviv University, Ramat Aviv 69978, Israel
2	14:35 – 14:50	Aharon Friedman E. Dyunin, A. Naus, Y. Lurie, A. Yahalom, A. Gover	The Super-Radiant FEL Project in Ariel University	Oral	Ariel University, *Tel Aviv University, Israel
3	14:50– 15:05	Miron Voin and L. Schächter	Fowler-Nordheim Emission in the THz Hybrid Cavity	Oral	Department of Electrical Engineering, Technion – Israel Institute of Technology, Haifa 32000, Israel
4	15:05 – 15:20	Matteo Laterza and I. Kronhaus	Multiscale simulation of a non-uniform plasma discharge	Oral	Faculty of Aerospace Engineering, Technion, Haifa 3200003, Israel

5	15:20 – 15:35	Lev Nagli ¹ M. Gaft ¹ , Y. Raichlin ¹ , I. Gornushkin ²	Lasing in Laser-Induced Plasma	Oral	¹ Ariel University, Physics Department, Ariel 40700, Israel; ² BAM Federal Institute for Materials Research and Testing, Richard-Willstätter-Straße 11, 12489 Berlin, Germany
	15:35 - 16:00	Coffee break			
6	16:00 – 16:15	Joseph K. Lefkowitz ¹ R. Brayfield ² , J. Miles ³ , S. Adams ³ , T. Ombrello ³ ,	The Effect of Inter-pulse Coupling on Plasma Temperature in Nanosecond- pulsed High-frequency Discharges	Oral	¹ Faculty of Aerospace Engineering, Technion – Israel Institute of Technology, Technion City, Haifa 3200003, Israel; ² Department of Nuclear Engineering, Purdue University, West Lafayette, IN 47907, USA; ³ United States Air Force Research Laboratory, Wright- Patterson AFB, Ohio 45433, USA
7	16:15 – 16:30	Moshe Einat M. Pilosof, R. Ben-Moshe, Y. Orbach, E. Avraham, H. Hirshbein	Gyrotrons at Ariel University	Oral	Faculty of Electrical and Electronic Engineering, Ariel University, Ariel, Israel
8	16:30 - 16:45	Avihai Aharon ^{1,2} D. Rozban ¹ , A. Abramovich ¹ , Y. Yitzhaky ³ , N. S. Kopeika ^{2,3}	Influence of MMW radiation on the glow intensity of plasma neon lamps and applications”	Oral	¹ Department of Electrical and Electronic Engineering, Ariel University, Israel, ² Department of Electrical and Computer Engineering, Ben-Gurion University of the Negev, Beer Sheva, Israel, ³ Department of Electro-Optical Engineering, Ben- Gurion University of the Negev, Beer Sheva, Israel
9	16:45 - 17:00	Boris Sorokov and I. Mizrahi	High Voltage Low Temperature Plasma Sputtering for Thin Film Applications	Oral	Micro Point Pro LTD, Yokneam, Israel

	17:00– 17:20	Closing Session, Students Awards
--	---------------------	---