



ECLIM 2012

32nd European Conference on Laser
Interaction with Matter
Warsaw, Poland, September 10-14, 2012

CONFERENCE PROGRAM

Sunday, 9th September
University of Warsaw

17.00 - 19.00 Registration of participants
18.00 - 19.00 Welcome

Monday, 10th September
University of Warsaw

09.00-10.00 Registration of participants
10.00-10.15 Opening ceremony

Opening Session 1

10.15-10.45 **IP-1 W. Sandner:**
Science with high intensity lasers in Europe
10.45-11.15 **IP-2 F. Krausz:**
Attosecond physics: the first decade
11.15-11.45 Coffee break

Opening Session 2

11.45-12.30 **IP-3 E. Storm** and E. Moses:
The National Ignition Campaign: status and progress
12.30-13.00 **IP-4 G. Mourou:**
Extreme light: laser-based particle physics paradigm
13.00-14.30 Lunch

Session 3 – Inertial Fusion Energy

14.30-15.00 **I-1 H. Azechi** and FIREX Project Team:
Present status of fast ignition realization experiment (FIREX) and inertial fusion energy development
15.00-15.30 **I-2 K. Labaune**, S. Depierreux, C. Goyon, V. Yahia, C. Courvoisier, C. Baccou, J. Rafelski, N.G. Borisenko, A. Orekhov, O. Rosmej, P.E. Masson-Laborde, D. Pesme, S. Hüller, V.T. Tikhonchuk:
Laser-plasma interaction physics in advanced ignition schemes for ICF
15.30 - 16.00 **I-3 A.N. Starodub:**
Coherency, laser-matter interaction, and ICF
16.00 - 16.30 Coffee break

Session 4 – Ultra Intense Lasers

- 16.30 - 17.00 **I-4** **J. Collier:**
Developments in high peak and high average power technology and systems at RAL
- 17.00 - 17.30 **I-5** **T.J. Yu, J.H. Sung, S.K. Lee, J.W. Yoon, T.M. Jeong, J. Lee:**
High-contrast, 30 fs, 1.5 PW Ti:sapphire laser system for the research on high field physics
- 17.30 - 17.45 **O-1** **P.S. Foster, D. Symes, D. Neely, N. Booth, J. Alston, O. Chekhlov, B. Parry, S. Hawkes, Y. Tang, C. Hooker, K. Poder, R. Pattathil:**
Developments on the Astra Gemini laser
- 17.45 - 18.00 **O-2** **H.J. Kong, S. Park, S. Cha:**
Highly repetitive tiled-aperture coherent beam combination laser with SBS-PCMs to the realization of the inertial fusion energy
- 18.00 - 19.30 Welcome Reception

Tuesday, 11th September
University of Warsaw

Session 5 – Particle Acceleration

- 09.00 - 09.30 **I-6** **D. Jaroszynski:**
Plasma as an amplifying and accelerating medium a new paradigm
- 09.30 - 10.00 **I-7** **A. Zigler, S. Eisenmann, M. Botton, E. Nahum, E. Schleifer, Y. Pomerantz, F. Abicht, J. Branzel, G. Priebe, S. Steinke, A. Andreev, M. Schnuerer, W. Sander, D. Gordon, P. Sprangle, K. Ledingham:**
Microstructured snow target for quasi-monochromatic high energy proton acceleration by ultra relativistic laser plasma interaction
- 10.00 - 10.15 **O-3** **M. Schnürer, S. Steinke, F. Abicht, J. Bränzel, G. Priebe, A.A. Andreev, P. Hilz, D. Kiefer, C. Kreuzer, J. Schreiber, T.P Yu, A. Pukhov, W. Sandner:**
Characteristics of acceleration fronts in laser driven nanometer thin composite foil targets at relativistic light intensities
- 10.15 - 10.30 **O-4** **S. Ter-Avetisyan, R. Prasad, M. Borghesi, A. Andreev, F. Abicht, J. Braenzel, L. Ehrentraut, G. Priebe, M. Schnuerer, V. Tikhonchuk:**
Laser plasma particle acceleration: energetic neutral and negative ion beam generation from spray target
- 10.30 - 10.45 **O-5** **J. Limpouch, J. Proška, O. Klimo, M. Květoň, F. Novotný, M. Possolt, J. Pšikal, M. Škereň, L. Štolcová, J. Vyskočil, D. Margarone, G. Korn, D. Kramer, T. Mocek, J. Prokúpek, A. Shukurov, T.M. Jeong, I.J. Kim, H.T. Kim, K.H. Nam, I.W. Choi, S.K. Lee, J.H. Sung, T.J. Yu:**
Advanced targets for laser-induced ion acceleration
- 10.45 - 11.00 **O-6** **J. Ju, K. Svensson, A. Döpp, K. Cassou, H. Ferrari, F. Wojda, G. Genoud, M. Burza, A. Persson, O. Lundh, C.G. Wahlström, B. Cros:**
Capillary-guided laser plasma electron acceleration and betatron X-ray radiation
- 11.00 - 11.30 Coffee break

Session 6 – X-ray Lasers

- 11.30 - 12.00 **I-8** **E. Oliva, T.T.T. Le, L. Lu, S. Sebban, J. Gautier, P. Velarde, P. Zeitoun:**
GW peak power plasma-based soft X-ray laser

- 12.00 - 12.30 **I-9** **T. Kawachi**, A. Sasaki, M. Nishikino, M. Ishino, N. Hasegawa, T. Imazono, M. Tanaka, A.Ya. Faenov, T.A. Pikuz, K. Janulewicz, C.M. Kim, H. Stiel, T. Morita, T. Kaihori, T. Suemoto, T. Tomita, N.A. Inogamov, M. Yamagiwa:
Source development and the applications of laser – driven plasma X-ray laser in JAEA
- 12.30 - 12.45 **O-7** **M. Kozlova**, J. Nejdil, M. Krus, J. Prokupek, J. Dostal, B. Rus, A. Klisnick, L. Meng, F. Tissandier, C. Stehlé, R. Lefevre, U. Chaulagain, N. Champion, P. Barroso, F.Reix, P. Jagourel, J. Larour, F. Delmotte, C. Constancias, F. Suzuki-Vidal, O. Acef:
Development and applications of multimilijoule Zn X-ray laser at PALS centre
- 12.45 - 13.00 **O-8** **R.A. Banici**, G.V. Cojocar, R. Dabu, H. Stiel, D. Ursescu:
X-ray lasers pumped with 1 long and 2 short pulses
- 13.00 - 14.30 Lunch

Session 7 – Laser Fusion & High-Intensity Interactions

- 14.30 - 15.00 **I-10** **S. Eliezer** and J. M. Martinez Val:
Heat wave fast ignition by relativistic acceleration of a foil
- 15.00 - 15.15 **O-9** **C. Goyon**, S. Depierreux, C. Baccou, C. Courvoisier, G. Loisel, V. Yahia, N.G. Borisenko, P.E Masson-Laborde, A. Orekhov, O. Rosmej, V.T. Tikhonchuk, C. Labaune:
Interaction on picosecond scale for shock ignition scheme of inertial fusion
- 15.15 - 15.30 **O-10** **P. Rączka**:
Fast ignition with different types of igniting beams
- 15.30 - 15.45 **O-11** **I.N. Zavestovskaya**:
Laser materials ablation
- 15.45 - 16.00 **O-12** L. Drska, E. Dhumieres, **V. Hanus**, M. Sinor, V. Tikhonchuk:
Laser-driven positron and muon generation
- 16.00 - 16.30 Coffee break

Session 8 – Diagnostics & Laser Plasmas

- 16.30 - 17.00 **I-11** **M.Kalal**:
Principles of complex interferometry and its applications in laser-matter interactions
- 17.00 - 17.15 **O-13** **J-É. Ducret**, for the PETAL+ collaboration:
The PETAL+ project: a set of diagnostics for the LMJ – PETAL high-energy laser facility
- 17.15 - 17.30 **O-14** T. Pisarczyk, A. Kasperczyk, P. Pisarczyk, **T. Chodukowski**, J. Ullschmied, E. Krouskey, M. Pfeifer, J. Skala:
Three-frame interferometric/shadowgraphic system for plasma research at PALS laboratory
- 17.30 - 17.45 **O-15** **B.S. Paradkar**, S.I. Krashenninikov, F.N. Beg:
Mechanism for the pre-formed plasma electrons heating in relativistic intensity laser-solid interaction
- 17.45 - 18.00 **O-16** **N. Borisenko**, A. Orekhov, V.Pimenov, Sh.Chaurasia, Yu.Merkuliev:
Plasma flux formation on the backside of low-density targets heated by powerful short laser pulses
- 18.00 - 19.30 Poster session

Wednesday, 12th September
University of Warsaw

Session 9 – Laser-driven X-ray/EUV Sources

- 09.00 - 09.30 **I-12 H. Hertz:**
Laboratory micro- and nano-imaging with liquid-jet X-ray source
- 09.30 - 10.00 **I-13 C.H. Nam, K.T. Kim, D.H. Ko, N.N. Choi, C.M. Kim:**
Ultrafast photoionization dynamics of He investigated with attosecond high-harmonics pulses
- 10.00 - 10.15 **O-17 K. Kovács, E. Balogh, J. Hebling, V. Toşa, K. Varjú:**
Inducing quasi-phase-matching in high order harmonic generation by using chirped THz fields
- 10.15 - 10.30 **O-18 T. Shaaran, M.F. Ciappina, M. Lewenstein:**
Theoretical study of laser driven processes by resonant plasmon field enhancement
- 10.30 - 10.45 **O-19 K.M. Nowak, T. Abe, J. Fujimoto, T. Hori, Y. Kawasuji, T. Kodama, H. Mizoguchi, H. Nakarai, T. Ohta, T. Saito, T. Suganuma, T. Yamazaki, T. Yanagida:**
High-average power CO₂ laser-driven EUV source for nanolithography - recent developments at Gigaphoton
- 10.45 - 11.00 **O-20 P. W. Wachulak, A. Bartnik, J. Kostecki, A. Baranowska-Korczyc, D. Pánek, P. Brůža, L. Węgrzyński, R. Jarocki, M. Szczurek, K. Fronc, D. Elbaum, H. Fiedorowicz:**
Applications of extreme ultraviolet (EUV) light to imaging of nanostructures and rapidly changing phenomena
- 11.00 - 11.30 Coffee break

Session 10 – Laser Fusion & Target Design and Fabrication

- 11.30 - 12.00 **I-14 J. Perlado, J. Sanz, J. Alvarez, D. Garoz, R. González-Arrabal, N. Gordillo, C. Guerrero, E. Mínguez, O. Peña, A. Rivera, E. del Rio, D. Cereceda, J. Fernández, A. Fraile, R. Juárez, N. Moral, R. Suarez, C. Sánchez, G. Valles, G. Velarde, M. Velarde, P. Velarde, M. Victoria, B. Rus, B. Le Garrec, M. Tyldsley, Ch. Edwards, J. Collier:**
HiPER design and technologies
- 12.00 - 12.30 **I-15 E. R. Koresheva:**
IFE targets high rep-rate production and delivery using the FST technologies
- 12.30 - 12.45 **O-21 V. Brandon, B. Canaud, S. Laffite, M. Temporal, R. Ramis:**
Target design for direct-drive shock ignition scheme on Laser MegaJoule
- 12.45 - 13.00 **O-22 G. Arthur, C. Spindloe:**
Fabrication of mass produced microdot arrays for use as micro-targets on high-repetition rate experiments
- 13.00 - 14.30 Lunch

Session 11 – Inertial Fusion Energy

- 14.30 - 15.00 **I-16 K. Mima, T. Taguchi, T. Johzaki, A. Sunahara, H. Nagatomo, H. Sakagami, J. Honrubia, A. Debyle, S. Fujioka, H. Shiraga, H. Azechi, J.M. Perlado:**
Target physics of fast ignition
- 15.00 - 15.30 **I-17 S. Guskov, N.V. Zmitrenko, V.E. Sherman:**
Non-cryogenic ICF targets

- 15.30 - 15.45 **O-23** **J. Krása**, A. Velyhan, D. Margarone, E. Krouský, K. Jungwirth, J. Skála, M. Pfeifer, D. Klír, J. Kravárik, K. Řezáč, P. Kubeš, J.Ullschmied:
Generation of DD-neutrons at intensities of $5 \times 10^{16} \text{ W cm}^{-2}$
- 15.45 - 16.00 **O-24** **L. Borisenko**, N. Borisenko, Yu.A. Merkuliev, A. Orekhov:
Computer reclaim of laser target parameters from X-ray tomography data
- 16.00 - 19.30 Excursion
- 19.30 - 21.30 Dinner

Thursday, 13th September
Military University of Technology

Session 12 – Particle Acceleration

- 09.00 - 09.30 **I-18** **J. Badziak**, T. Pisarczyk, S. Jabłoński, T. Chodukowski, S. Borodziuk, Z. Kalinowska, A. Kasperczuk, P. Parys, P. Rączka, M. Rosiński, J. Wołowski, E. Krousky, M. Pfeifer, J. Skala, J. Ullschmied, R. Liska, M. Kucharik, K. Tomaszewski, P. Pisarczyk, Yong-Joo Rhee:
Laser-induced cavity pressure acceleration of dense plasma and ion beams
- 09.30 - 10.00 **I-19** **C. Thaury**, S. Corde, K. Ta Phuoc, A. Lifschitz, G. Lambert, A. Rousse, V. Malka:
Laser plasma electron acceleration at LOA
- 10.00 - 10.15 **O-25** N. Naseri, D. Pesme, **W. Rozmus**:
Channeling of relativistic laser pulses in underdense plasmas and subsequent electron acceleration
- 10.15 - 10.30 **O-26** **C.M. Brenner**, P. McKenna, K. Markey, A.P.L Robinson, R.H.H. Scott, R.J. Gray, M. Rosinski, J. Badziak, D. Batani, C. Beaucourt, E. Clarke, J.R. Davies, O. Deppert, S. Hassan, K.L. Lancaster, K. Li, I.O. Musgrave, P.A. Norreys, M. Notley, J. Pasley, M. Roth, J.J. Santos, H.P. Schlenvoigt, C. Spindloe, M. Tatarakis, T. Winstone, J. Wolowski, D. Wyatt, D. Neely:
Using a double-pulse laser drive to achieve high laser-to-proton conversion efficiency
- 10.30 - 10.45 **O-27** **J. Metzkes**, M. Bussmann, T.E. Cowan, T.Kluge, S.D. Kraft, U. Schramm, K. Zeil:
Prompt pre-thermal laser ion sheath acceleration with ultra-short laser pulses
- 10.45 - 11.00 **O-28** **J. Green**, G. Scott, O. Ettliger, M. Borghesi, D. Carroll, N. Dover, P. Foster, S. Kar, P. McKenna, Z. Najmudin, D. Neely:
Measurements of laser-generated proton beams using a novel, multi-colour beam profiler
- 11.00 - 11.30 Coffee break

Session 13 – Inertial Fusion Energy

- 11.30 - 12.00 **I-20** **D. Batani**:
Results from recent experiments and future roadmap to shock ignition of fusion targets
- 12.00 - 12.30 **I-21** **L.O. Silva**:
Collisionless shocks driven by ultra intense lasers
- 12.30 - 12.45 **O-29** **M. Murakami**, J. Sanz, Y. Iwamoto:
High compression of matter by hyper-spherical shock waves
- 12.45 - 13.00 **O-30** I.A. Belov, S.A. Bel'kov, Yu.A. Voronin, I.N. Voronich, S.G. Garanin, **V.N. Derkach**:
The EOS study on Luch facility
- 13.00 - 15.00 Lunch

Sponsors exhibition

15.00 - 16.00 Exhibition

Special session 14 – High Pulsed Power Lasers for Energy & Health

16.00 - 16.30 **I-22 Ch. Edwards:**
Prospects for laser fusion energy

16.30 - 17.00 **I-23 T. Cowan:**
Application of laser-accelerated ions in radiation oncology

17.00 - 18.00 Concert

18.00 - 19.30 Cocktail & Poster session

Friday, 14th September
Military University of Technology

Special session 15 - Laser-Matter-Interaction Physics at XFEL

09.00 - 09.20 **Intro T. Cowan:**
High power lasers at XFEL

09.20 - 09.50 **I-24 C. Gutt:**
Coherent X-ray holography at XFELs

09.50 – 10.20 **I-25 J. Wark:**
Direct measurements of the ionization potential depression in a solid-density plasma by use of an X-ray free-electron laser

10.20 - 10.35 **O-31 R. Sobierajski**
Interaction of intense femtosecond XUV and soft X-ray pulses with solids

10.35 - 10.50 **O-32 A. Bartnik, P. Wachulak, H. Fiedorowicz, T. Fok, R. Jarocki, B. Korczyk, J. Kosteki, A. Szczurek, M. Szczurek, Ł. Węgrzyński:**
Photoionization of gases using a laser plasma produced EUV beam

10.50 - 11.00 **O-33 J.B. Pelka, R. Nietubyć, G. Wrochna, R. Sobierajski:**
A concept of a free electron laser center in Poland

11.00 - 11.30 Coffee break

Session 16 – High-Intensity Laser Interactions

11.30 - 12.00 **I-26 K. Janulewicz, H.J. Lee, A. Hapiddin, C.M. Kim, J.H. Sung, P.V. Nickles, D. Joseph, K.E. Geckeler:**
Energy deposition in embedded nanostructures

12.00 - 12.15 **O-34 A.A. Andreev, K.Yu. Platonov:**
Fast particles and short wavelength radiation generation from nanostructure target irradiated by high intensity ultra short laser pulses

12.15 - 12.30 **O-35 K. Krajewska, J. Z. Kamiński:**
Nonlinear Compton scattering in ultrashort laser pulses

12.30 - 12.45 **O-36 W. Rozmus, C. Fortmann, S.H. Glenzer, A.V. Brantov, V.Yu. Bychenkov:**
Electrostatic fluctuations and Thomson scattering in collisional plasmas

12.45 - 13.00 Closing

13.00 - 15.00 Lunch

Poster presentations

Tuesday, 11th September 18.00-19.30
University of Warsaw

Poster session 1

- P-1** **S. Borodziuk**, T. Chodukowski, Z. Kalinowska, A. Kasperczuk, T. Pisarczyk, J. Ullschmied, E. Krousky, J. Skala, P. Pisarczyk:
Fast and dense macroparticles accelerated by iodine laser radiation of PALS
- P-2** **C.M. Brenner**, P. McKenna, J.S. Green, A.P.L. Robinson, D.C. Carroll, B. Dromey, P.S. Foster, S. Kar, Y.T. Li, K. Markey, C. Spindloe, M.J.V. Streeter, M. Tolley, C.G. Wahlström, M.H. Xu, M. Zepf, D. Neely:
Scaling of plasma sheath accelerated protons with laser drive energy and focal spot size
- P-3** **J. Domański**, J. Badziak, S. Jabłoński:
Acceleration of and carbon ions to GeV energies at the interactions of an ultra-intense laser pulse with a CH target
- P-4** R. De Angelis, A. Bonasera, **F. Consoli**, P. Andreoli, G. Cristofari, G. Di Giorgio, M. Pillon, M. Calamosca, S. Penzo:
Study on $p+^{11}B$ fusion reactions in nanoseconds laser plasmas
- P-5** **G. Eliseev**, V. Vatulín:
Archives of photon-plasma interaction data for numerical simulation of experiments on “ISKRA-5”
- P-6** **C. Granados**, L. Plaja:
Dipole time derivatives in the Strong Field Approximation
- P-7** **K. Iqbal**, H. Ruhl:
The effects of retardation and radiation reaction on relativistic electron motion
- P-8** **R. Liska**, O. Renner, M. Šmíd, O. Larroche:
Hydrodynamic simulation of interpenetrating laser-produced plasmas
- P-9** Y.B.S.R. Prasad, S. Barnwal, E.A. Bolkhovitinov, P.A. Naik, M.P. Kamath, A.S. Joshi, S.R. Kumbhare, **A.A. Rupasov**, P.D. Gupta:
Study of self-generated magnetic fields in laser produced plasma using a three-channel polaro-interferometer
- P-10** **M. Tański**, M. Kocik, R. Barbucha, J. Mizeraczyk:
Time-resolved observation of the ablation plasma plume dynamics and soundwave propagation during nanosecond laser micromachining
- P-11** **M. Martinkova**, T. Pisarczyk, A. Kasperczuk, P. Pisarczyk:
Analysis of jets originated from solid planar targets after their irradiation by PALS iodine laser
- P-12** S.A. Bel’kov, I.N. Voronich, S.G. Garanin, I.N. Derkach, V.A. Eroshenko, **S.V. Koshechkin**:
The UFL-2M facility: beamline energy ratings
- P-13** **P.S. Foster**, D. Symes, D. Neely, S. Hawkes, Y. Tang, C. Hooker, K. Poder, M. Zepf, R. Pattathil:
Temporal characterisation of plasma mirror reflectivity for the production of high contrast pulses on Astra Gemini
- P-14** S.A. Bel’kov, I.N. Voronich, S.G. Garanin, **I.N. Derkach**, V.A. Eroshenko, I.E. Chernov, Yu.V. Shagalkin:
Optical layout of a powerful neodymium laser facility UFL-2M
- P-15** **L. Ionel**, D. Ursescu:
Design considerations for multi-PW non-linear Thomson scattering experiments

- P-16** **J. Metzkes**, M. Bussmann, T. E. Cowan, T. Kluge, S. D. Kraft, U. Schramm, K. Zeil: *Reflective optical probing of high intensity laser matter interactions*
- P-17** **S.V. Pinhasi**, S. Eliezer, B. Glam, G. Appelbaum: *Topography measurements of fast moving surfaces*
- P-18** V.A. Burakov, A.A. Kologrivov, **M.V. Osipov**, V.N. Puzyrev, A.N. Starodub, O.F. Yakushev: *X-ray diagnostics of plasma created by laser with controllable coherence of radiation*
- P-19** **F. Hall**, C. Spindloe, M. Suggit, J. Wark, G. Kimminau: *Complex multi-layer thin film deposition for use as an X-ray backlighter source*
- P-20** **A. Orekhov**, I. Akimova, A. Akunets, N. Borisenko, A. Gromov, V. Pimenov, Yu.A. Merkuliev: *Micro structured polymer aerogel layers with high-Z metal nanoparticles (Au, Sn, Cu etc.) for laser targets*

Thursday, 13th September, 18.00-19.30
Military University of Technology

Poster Session 2

- P-21** **D. Ursescu**, R. Dabu and the ELI-NP team: *Status of extreme light infrastructure – nuclear physics facility*
- P-22** **I.O. Musgrave**, R.J. Clarke, R. Heathcote, C. Hernandez-Gomez, M. Galimberti, J Green, D. Neely, T.B. Winstone, J. Collier: *Development of novel optical probes for the Vulcan Petawatt Facility*
- P-23** **K. Garasz**, M. Kocik, R. Barbucha, J. Mizeraczyk: *The concept and pulse properties of a prototype Yb:KYW femtosecond laser*
- P-24** **S. Bedacht**, G. Schaumann, M. Roth, D.H.H. Hoffmann: *Thin cryogenic hydrogen targets for laser and particle beams*
- P-25** **C. Spindloe**, G. Arthur, D. Haddock, M.K. Tolley: *Solutions for target delivery to high repetition rate high power laser systems*
- P-26** **S. Paradkar**, B. Cros, P. Mora, G. Maynard: *Modelling of electrons acceleration to ultra-relativistic energies using a multistage laser wakefield accelerator*
- P-27** **V. Vatulín**, M. Barinov, K. Volkova, P. Gasparyan, G. Eliseev, N. Zhidkov, P. Kuznetsov, L. Morenko, V. Smirnov, N. Suslov, E. Tsoy: *Theoretical research of the X-ray parameters from the targets irradiated at “ISKRA-5” laser*
- P-28** V. Vatulín, P. Gasparyan, **N. Zhidkov**, D. Martsovenko, N. Suslov, G. Tachaev, E. Tsoy: *Investigation of X-ray line emission from plasmas of various elements on Iskra-5 laser*
- P-29** A. Bartnik, H. Fiedorowicz, T. Fok, R. Jarocki, P. Wachulak, **Ł. Węgrzyński**: *Gas puff targets for high-intensity laser-matter interaction experiments*
- P-30** **J. Psikal**, O. Klimo, J. Limpouch: *Numerical modelling of femtosecond laser pulse interaction with larger multispecies clusters including ionization*
- P-31** **H. Hora**, P. Lalouis, S. Eliezer, S. Moustazis, I.B. Földes: *Ultrahigh laser acceleration of nonlinear force driven plasma blocks for side-on ignition of fusion*
- P-32** **J. Wolowski**, M. Rosinski, P. Parys, L. Ando, M. Cutroneo, L. Giuffrida, L. Torrisi: *Laser ion source with acceleration and deflection system for laser implantation technology*

- P-33** A. Bartnik, H. Fiedorowicz, **B. Korczyc**, J. Kostecki:
Modification of polymer surfaces using a compact laser plasma light source
- P-34** **I.N. Zavestovskaya**:
Theoretical modeling of laser ablation of polymers
- P-35** A. Bartnik, J. Dostal, H. Fiedorowicz, **T. Fok**, R. Jarocki, M. Kozłowa, J. Prokupek, P.W. Wachulak, Ł. Węgrzyński:
High-order harmonic generation from a multi-jet gas puff target irradiated with femtosecond laser pulses
- P-36** **L. Ryć**, J. Krása, L. Láska, D. Margarone, T. Nowak, P. Parys, K. Rohlena:
Multi-peak structure of fast-ion TOF spectra generated from plasmas at laser intensity higher than 10^{15} W/cm²
- P-37** **J. Huynh**, J. Dostál, R. Dudžák, M. Kálal:
Ti:Sa femtosecond interferometry at PALS laser facility
- P-38** **Z. Kalinowska**, A. Kasperczuk, T. Pisarczyk, T. Chodukowski, P. Parys, O. Renner, M. Smid, S. Yu. Guskov, N.N. Demchenko, J. Ullschmied, E. Krousky, M. Pfeifer, K. Rohlena, J. Skala:
PALS investigation of mechanisms of laser radiation absorption
- P-39** **A.M. Smid**, O. Renner, R. Liska:
Environmental conditions in near-wall plasmas generated by impact of energetic particle fluxes
- P-40** **I.N. Kosarev**:
Dense electron beam generation in thin film by ultra - intense femto - second laser pulse
- P-41** V. Romanov, V.L. Paperny, Yu.V. Korobkin, N.G. Kiselev, A. A. Rupasov, **S. Shikanov**:
Progress in creation of the source of accelerated multiple charged metallic ions on the base of a laser induced moderate energy vacuum spark
- P-42** **L. Nikzad**, R. Sadighi-Bonabi:
X-ray simulation by using laser produced electrons

Conference organization

Institute of Optoelectronics,
Military University of Technology
2, Kaliskiego Street
00-908 Warsaw, Poland
Tel: +48 22 683 9430, Fax: +48 22 666 8950
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