

List of Publications

Kinga Gál

KFKI Research Institute for Particle and Nuclear Physics of HAS

EURATOM Association

Publications in refereed journals

First authorship

- [1] K. Gál, T. Fehér, H. Smith, T. Fülöp and P. Helander, *Runaway electron generation during plasma shutdown by killer pellet injection*, Plasma Phys. Control. Fusion **50** (2008), 055006 [IF: 3.070].
- [2] K. Gál, É. Belonohy, G. Kocsis, P. T. Lang, G. Veres and the ASDEX Upgrade Team, *Role of shielding in modelling cryogenic deuterium pellet ablation*, Nucl. Fusion **48** (2008), 085005 [IF: 3.278].
- [3] K. Gál and S. Varró, *Polarization properties of high harmonics generated on solid surfaces*, Opt. Comm **194** (2001), 419–431 [IF: 1.354], [Citations: 3].

Co-authorship

- [4] T. Fehér, H. M. Smith, T. Fülöp, K. Gál *Simulation of runaway electron generation during plasma shutdown by impurity injection in ITER*, submitted to Plasma Phys. Control. Fusion, 2010.
- [5] H. M. Smith, T. Fehér, T. Fülöp, K. Gál, E. Verwichte, *Runaway electron generation in tokamak disruptions* Plasma Phys. Control. Fusion **51** (2009), 124008 [IF 2.409].
- [6] H. Zohm, J. Adamek, C. Angioni et al, *Overview of ASDEX Upgrade*, Nucl. Fusion **49** (2009), 104009 [IF: 3.278].
- [7] R. J. Hawryluk, D. J. Campbell, G. Janeschitz et al, *Principal Physics Developments Evaluated in the ITER Design Review*, Nucl. Fusion **49** (2009), 065012 [IF: 3.278].
- [8] E. Belonohy, O. J. W. F. Kardaun, T. Fehér, K. Gál, S. Kálvin, G. Kocsis, K. Lackner, P. T. Lang, J. Neuhauser and the ASDEX Upgrade Team, *A high field side pellet penetration depth scaling derived for ASDEX Upgrade*, Nucl. Fusion **48** (2008), 065009 [IF: 3.278].
- [9] P. T. Lang, K. Lackner, M. Maraschek, B. Alper, E. Belonohy, K. Gál, J. Hobirk, A. Kallenbach, H. Zohm and JET-EFDA contributors, *Investigations of pellet-triggered MHD events in ASDEX Upgrade and JET*, Nucl. Fusion **48** (2008), 095007 [IF: 3.278].
- [10] P. T. Lang, P. Cierpka, J. Harhausen, J. Neuhauser, C. Wittmann, K. Gál, S. Kálvin, G. Kocsis, J. Sárkozi, T. Szepesi, C. Dorner, G. Kauke and ASDEX Upgrade Team, *Cryogenic pellet launcher adapted for controlling of tokamak plasma edge*, Rev. Sci. Instrum. **78** (2007), 023504 [IF: 1.384] [Citations: 1].
- [11] R. Neu, M. Balden, V. Bobkov et al, *Plasma wall interaction and its implication in an all tungsten divertor tokamak*, Plasma Phys. Control. Fusion **49** (2007), B59–B70 [IF: 3.070] [Citations: 1].
- [12] P. T. Lang, B. Alper, R. Buttery, K. Gál, J. Hobirk, J. Neuhauser, M. Stamp and JET-EFDA contributors, *ELM triggering by local pellet perturbations in type-i ELMs H-mode plasma at JET*, Nucl. Fusion **47** (2007), 754–761 [IF: 3.278] [Citations: 4].

- [13] P. T. Lang, K. Gál, J. Hobirk, S. Kálvin, G. Kocsis, M. Maraschek, V. Mertens, J. Neuhauser, W. Suttrop, G. Veres and ASDEX Upgrade Team, *Investigations on the ELM cycle by local 3D perturbation experiments*, Plasma Phys. Control. Fusion **48** (2006), A141–A148 [IF: 2.820] [Citations: 1].
- [14] G. Anda, A. Bencze, M. Berta, D. Dunai, K. Gál and G. Pokol, *Fúziós nyári iskola a CASTOR tokamagnál, (Fusion Summerschool at CASTOR tokamak)*, Fizikai Szemle **55** (2005), 105-110.
- [15] S. Günter, C. Angioni, M. Apostoliceanu et al, *Overview of ASDEX Upgrade results–Development of integrated operating scenarios for ITER*, Nucl. Fusion **45** (2005), S98–S108 [IF: 3.418] [Citations: 7].
- [16] P. T. Lang, J. Hobirk, L. D. Horton, A. Kallenbach, M. Maraschek, V. Mertens, R. Neu, J. Neuhauser, T. Pütterich, W. Schneider, A. C. C. Sips, W. Suttrop, ASDEX Upgrade Team, J. Bucalossi, L. Fattorini, M. E. Manso, K. Gál, S. Kalvin, G. Kocsis, G. Veres, J. Lister and Y. Martin, *Local 3D perturbation experiments for probing the ELM stability*, Czechoslovak Journal of Physics **55** (2005), 1557–1567 [IF: 0.36].
- [17] S. Varró, K. Gál and I. B. Földes, *Intensity dependent anomalous transmittivity of thin plasma layers*, Laser Physics Letters **1** (2004), 111–114 [IF: 1.225].
- [18] I. B. Földes, J. S. Bakos, K. Gál, Z. Juhász, M.Á. Kedves, G. Kocsis and S. Szatmári, *Properties of high harmonics generated by ultrashort laser pulses on solid surfaces*, Laser Physics **10** (2000), 264–269 [IF: 0.891] [Citations: 2].
- [19] B. Hopp, Z. Tóth, K. Gál, Á. Mechler, Zs. Bor, S. D. Moustazis, S. Georgiu and C. Fotakis, *Time-resolved investigation of the transient surface reflection changes of subpicosecond excimer laser ablated liquids*, Appl. Phys. A **69** (1999), S191–S194 [IF: 1.753] [Citations: 9].
- [20] G. Veres, J. S. Bakos, I. B. Földes, K. Gál, Z. Juhász, G. Kocsis and S. Szatmári, *Polarization of harmonics generated by ultrashort KrF-laser pulses on solid surfaces*, Europhys. Lett. **48** (1999), 390–396 [IF: 2.214] [Citations: 6].

Conference proceedings

First authorship

- [1] K. Gál, T. Fehér, T. Fülöp, P. T. Lang, H. M. Smith and ASDEX Upgrade Team, *Mitigation of ELMs and Disruptions by Pellet Injection*, Proceedings of 22st IAEA Fusion Energy Conference, Geneva, 13–18 October, 2008, TH/P4–5.
- [2] K. Gál, P. T. Lang, J. Neuhauser and ASDEX Upgrade Team, *Pellet induced perturbations in the plasma edge*, Europhysics Conference Abstracts **31F** (2007), P–4.080.
- [3] K. Gál, H. Smith, T. Fülöp and P. Helander, *Runaway electron generation during plasma shutdown by killer pellet injection*, Proceedings of 21st IAEA Fusion Energy Conference, Chengdu, China, 16-21 October, 2006, TH/P3–2.
- [4] K. Gál, A Kallenbach, S. Kálvin, G. Kocsis, P. T. Lang, G. Veres and ASDEX Upgrade Team, *Simulation of pellet induced perturbations in fusion plasmas for fueling and ELM triggering scenarios*, Europhysics Conference Abstracts **29C** (2005), P–2.098.
- [5] K. Gál, S. Varró and I. B. Földes, *Anomalous transparency induced by high intensity laser pulses*, Proceedings of 19st IAEA Fusion Energy Conference, Lyon, France, 14-19 October, 2002, PD/P–03 .
- [6] K. Gál and S. Varró, *Single electron model of second and third harmonic generation on solid surfaces*, Proceedings of SPIE **4424** (2001), 228–231.

Co-authorship

- [7] T. Fehér, H. M. Smith, T. Fülöp, K. Gál *Simulation of runaway electron generation during plasma shutdown by impurity injection*, 37nd EPS Conference on Plasma Physics, Dublin, Ireland, 2010
- [8] E. Belonohy, K. Gál, O. Kardaun, P. T. Lang, B. Lovász and ASDEX Upgrade Team, *Magnetic Field Dependence of Pellet Penetration*, 37nd EPS Conference on Plasma Physics, Dublin, Ireland, 2010.
- [9] T. Fehér, H. M. Smith, T. Fülöp and K. Gál, *Simulation of Runaway Electron Generation During Plasma Shutdown by Impurity Injection* Proceedings of ENERGETIC PARTICLES IN MAGNETIC CONFINEMENT SYSTEMS 11th IAEA TM 20th Anniversary Meeting, Kyiv, Ukraine, (2009) OT-15.
- [10] D. Frigione, A. Boboc, K. Gál, L. Garzotti, E. Giovannozzi, F. Köchl, G. Kocsis, P. T. Lang, M. Valovic, B. Pegourie and JET-EFDA contributors, *Analysis of Pellet Fuelling, Ablation and Particle Deposition at JET*, 36nd EPS Conference on Plasma Physics, Sofia, Bulgaria, 2009.
- [11] R. Wenninger, T. Eich, W. Fundamenski, P. T. Lang, S. Devaux, K. Gál, A. Geraud, D. Harting, G. Kocsis, H. W. Mller, H. Thomsen and JET-EFDA contributors, *Comparison of Divertor Power Loads of Spontaneous and Pellet Triggered ELMs at JET*, 36nd EPS Conference on Plasma Physics, Sofia, Bulgaria, 2009.
- [12] P. T. Lang, K. Lackner, B. Alper, E. Belonohy, D. Frigione, K. Gál, A. Geraud, G. Kocsis, T. Loarer, A. Loarte, M. Maraschek, G. Saibene, R. Sartori, J. Schweinzer, T. Szepesi, R. Wenninger, H. Zohm, ASDEX Upgrade Team and JET-EFDA Contributors, *Investigating Pellet Physics for ELM Pacing and Particle Fuelling in ITER*, Proceedings of 22st IAEA Fusion Energy Conference, Geneva, 13-18 October, 2008, EX/4-5.
- [13] P. T. Lang, B. Alper, D. Frigione, K. Gál, G. Kocsis, K. Lackner, T. Loarer, M. Maraschek, G. Saibene, T. Szepesi, R. Wenninger, H. Zohm, ASDEX Upgrade Team and JET-EFDA contributors, *Pellet investigations related to ITER ELM pacing and particle fuelling*, 35nd EPS Conference on Plasma Physics, Hersonissos, Crete, 2008 [Citations: 1].
- [14] A. R. Polevoi, A. S. Kukushkin, W. Houlberg, S. Maruyama, K. Gál, P. T. Lang, B. Pegourie, H. Nehme, M. Sugihara, A. Loarte, D. Campbell, V. A. Chuyanov, *Assessment of Pumping Requirements in ITER for Pellet Fuelling and ELM Pace Making*, 35nd EPS Conference on Plasma Physics, Hersonissos, Crete, 2008.
- [15] T. Fehér, K. Gál, H. M. Smith, T. Fülöp and P. Helander, *Simulation of runaway electron generation during plasma shutdown by doped pellet injection*, 35nd EPS Conference on Plasma Physics, Hersonissos, Crete, 2008.
- [16] H. M. Smith, K. Gál, T. Fehér, T. Fülöp and P. Helander, *Runaway electron generation during plasma shutdown by pellet injection*, Europhysics Conference Abstracts **31F** (2007), P-4.056 [Citations: 1].
- [17] H. M. Smith, K. Gál, T. Fehér, T. Fülöp and P. Helander, *Runaway electron generation during plasma shutdown by pellet injection*, Proceedings of 10th IAEA Technical Meeting on Energetic Particles in Magnetic Confinement Systems, Kloster Seeon, Germany, 2007, OT13.
- [18] P. T. Lang, B. Alper, A. Boboc, R. Buttery, K. Gál, J. Hobirk, J. Neuhauser, M. Stamp and JET-EFDA contributors, *ELM triggering by local pellet perturbations at JET*, Europhysics Conference Abstracts **31F** (2007), P-5.132.
- [19] P. T. Lang, J. Bucalossi, L. Fattorini, K. Gál, J. Hobirk, L. D. Horton, A. Kallenbach, J. Lister, S. Kalvin, G. Kocsis, M. E. Manso, M. Maraschek, Y. Martin, V. Mertens, R. Neu, J. Neuhauser, T. Pütterich, W. Schneider, A. C. C. Sips, W. Suttrop, G. Veres

and ASDEX Upgrade Team, *ELM mitigation by externally induced ELMs - physics and prospects*, Europhysics Conference Abstracts **29C** (2005), O-4.003.

- [20] I. B. Földes, K. Gál, G. Kocsis, E. Rácz and S. Szatmári, *High-harmonics from UV laser plasma*, Proceedings of SPIE **5528** (2003), 473–231.

Talks, lectures, presentations

Talks

- [1] *Pellet modelling*, The 5th HPPFT Workshop, 26-28 April, 2010, Dobogókő, Hungary.
- [2] *Room temperature solid state pellet modelling*, Pellet Strategy Meeting, 26 February, 2010, Garching, Germany.
- [3] *Room temperature solid state pellets for ELM mitigation—An open question*, ITPA meeting on Pedestal and Edge Physics, 21-23 April, 2010, Naka, Japan.
- [4] *Simulation of deuterium pellet ablation*, Pellet technology meeting, 24 September, 2009, JET, Culham, UK.
- [5] *Pellets, a tool for fuelling and disruption mitigation*, ITER Fuelling Workshop, 1-3 December 2008, ITER Organization, Cadarache, France.
- [6] *Simulation of pellet perturbations in the plasma edge*, Hungarian Plasma Physics and Fusion Technology Workshop, 26-28 March, 2008, Győr, Magyarország.
- [7] *Inertial confinement fusion*, The Sixth International Summer Training Course, 26 June–4 July, 2008, Budapest, Magyarország.
- [8] *Út a fúziós reaktor felé (Towards a fusion reactor)*, TDK Hétvége, 12–14 October, Pécs, Magyarország.
- [9] *Radiation of carbon doped deuterium and pure carbon pellet clouds*, 3rd Hungarian Plasma Physics and Fusion Technology Workshop, 20-21 April, 2006, Visegrád, Magyarország.
- [10] *Simulation of deuterium pellet ablation in ASDEX Upgrade and ITER like plasmas*, British-Romanian-Hungarian Workshop for Young Researchers on Plasma- and Astrophysics: from laboratory to outer space, 17-19 January, 2005, Cluj-Napoca, Romania (**invited lecture**).

Seminars

- [11] *Pellet Induced Perturbations in the Plasma Edge*, Chalmers Seminar, 6 May 2008, University of Technology, Department of Radio and Space Science, Gothenburg, Sweden.
- [12] *Pellet Ablation Modelling in ASDEX Upgrade, Predictions for ITER*, Edge Physics Forum, 8 February 2007, Max-Planck-Institute für Plasma Physics, Garching, Germany.
- [13] *Deutérium pelletek ablációja forró plazmában (Deuterium pellet ablation in fusion plasmas)*, Plasma Physics Seminar, 6th May 2006., MTA KFKI RMKI, Budapest, Magyarország.
- [14] *Pellet Ablation Modelling in ASDEX Upgrade, Predictions for ITER*, ASDEX Upgrade Seminar, 8 December 2004, Max-Planck-Institute für Plasma Physics, Garching, Germany.

- [15] *Ablation modelling and pellet tracking*, Get in touch meeting, 22 July 2004, Max-Planck-Institute für Plasma Physics, Garching, Germany.
- [16] *Pelletek és forró plazma kölcsönhatásának vizsgálata (Study of pellet and hot plasma interaction)*, Plasma Physics Seminar, 6th May 2004., MTA KFKI RMKI, Budapest, Magyarország.
- [17] *Vékony plazmarétegek anomális áteresztőképessége nagy intenzitású lézerimpulzusok hatására (High intensity laser induced anomalous transparency of thin plasma layers)*, Plasma Physics Seminar, 1th October, 2002., MTA KFKI RMKI, Budapest, Magyarország.