

# The GOLEM tokamak bibliography

The tokamak GOLEM team

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## Official GOLEM Articles

- [1] S. Abbasi, J. Chlum, J. Mlynar, V. Svoboda, J. Svoboda, and J. Brotankova, “Plasma diagnostics using fast cameras at the GOLEM tokamak,” *Fusion Engineering and Design*, vol. 193, p. 113647, 2023, ISSN: 0920-3796. DOI: <https://doi.org/10.1016/j.fusengdes.2023.113647>. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0920379623002302>.
- [2] P. Mácha, J. Adamek, J. Seidl, J. Stockel, V. Svoboda, G. Oost, L. Lobko, and J. Krbec, “Spontaneous formation of a transport barrier in helium plasma in a tokamak with circular configuration,” *Nuclear Fusion*, Aug. 2023.
- [3] G. Sarancha, Y. Ammosov, A. Balashov, N. Butrova, O. Krokhalev, A. Loginov, A. Melnikov, M. Popova, A. Stepin, A. Stolbov, V. Svoboda, S. Sunstov, G. Timkovskiy, and G. Team, “Remote plasma physics research and teaching by example of turbulence study at the university-scale tokamak golem,” *Fusion Science and Technology*, vol. 79, no. 4, pp. 432–445, 2023. eprint: <https://doi.org/10.1080/15361055.2022.2148842>. [Online]. Available: <https://doi.org/10.1080/15361055.2022.2148842>.
- [4] J. Cerovsky, O. Ficker, V. Svoboda, E. Macusova, J. Mlynar, J. Caloud, V. Weinzettl, and M. Hron, “Progress in HXR diagnostics at Golem and COMPASS tokamaks,” *Journal of Instrumentation*, vol. 17, no. 01, p. C01033, Jan. 2022. DOI: 10.1088/1748-0221/17/01/c01033. [Online]. Available: <https://doi.org/10.1088/1748-0221/17/01/c01033>.
- [5] S. Kulkov, M. Marcisovsky, P. Svihra, M. Tunkl, M. van Beuzekom, J. Caloud, J. Cerovsky, O. Ficker, E. Macusova, J. Mlynar, V. Weinzettl, and V. Svoboda, “Detection of runaway electrons at the COMPASS tokamak using a Timepix3-based semiconductor detector,” *Journal of Instrumentation*, vol. 17, no. 02, P02030, Feb. 2022. DOI: 10.1088/1748-0221/17/02/p02030. [Online]. Available: <https://doi.org/10.1088/1748-0221/17/02/p02030>.
- [6] G Sarancha, V Svoboda, J Stockel, and A Melnikov, “Magnetic turbulence and long-range correlation studies in the Golem tokamak,” *Journal of Physics: Conference Series*, vol. 2055, no. 1, p. 012003, Oct. 2021.
- [7] G. Sarancha, A. Drozd, I. Emekeev, S. Ganin, D. Kropachkova, I. Kudashev, V. Kulagin, M. Lauerova, A. Melnikov, N. Sergeev, O. Krokhalev, J. Stockel, and V. Svoboda, “Hydrogen and helium discharges in the Golem tokamak,” *Problems Of Atomic Science And Technology, Ser. Thermonuclear Fusion*, vol. 4, pp. 92–110, 2021.
- [8] Y. Siusko, V. Svoboda, J. Stockel, I. Garkusha, D. Solyakov, I. Girka, V. Volkov, D. Bondar, V. Kondratenko, A. Boychenko, A. Krupka, D. Boloto, D. Drozdov, O. Salmin, and A. Shchibrya, “Breakdown phase in the Golem tokamak and its impact on plasma performance,” *Ukrainian Journal of Physics*, vol. 66, no. 3, pp. 231–239, 2021. [Online]. Available: <https://ujp.bitp.kiev.ua/index.php/ujp/article/view/2020180>.
- [9] M. Gryaznevich, J. Stöckel, G. V. Oost, E. D. Bosco, V. Svoboda, A. Melnikov, R. Kamendje, A. Malaquias, G. Mank, and R. Miklaszewski, “Contribution of joint experiments on small tokamaks in the framework of IAEA coordinated research projects to mainstream fusion research,” *Plasma Science and Technology*, vol. 22, no. 5, p. 055102, Mar. 2020. DOI: 10.1088/2058-6272/ab6d4d. [Online]. Available: <https://doi.org/10.1088/2058-6272/ab6d4d>.
- [10] L. Novotny, J. Cerovsky, P. Dhyani, O. Ficker, M. Havranek, M. Hejtmanek, Z. Janoska, V. Kafka, S. Kulkov, M. Marcisovska, M. Marcisovsky, G. Neue, P. Svihra, V. Svoboda, L. Tomasek, M. Tunkl, and V. Vrba, “Runaway electron diagnostics using silicon strip detector,” *Journal of Instrumentation*, vol. 15, no. 07, p. C07015, Jul. 2020. DOI: 10.1088/1748-0221/15/07/c07015. [Online]. Available: <https://doi.org/10.1088/1748-0221/15/07/c07015>.
- [11] P. Dhyani, V. Svoboda, V. Istokskaja, J. Mlynar, J. Cerovsky, O. Ficker, and V. Linhart, “Study of runaway electrons in Golem tokamak,” *Journal of Instrumentation*, vol. 14, no. 09, pp. C09029–C09029, Sep. 2019. DOI: 10.1088/1748-0221/14/09/c09029. [Online]. Available: <https://doi.org/10.1088/1748-0221/14/09/c09029>.
- [12] J. Stockel, V. Svoboda, M. Zhekova, M. Dimitrova, P. Marinova, and A. Podolnik, “Operational domain in hydrogen plasmas on the Golem tokamak,” *Journal of Fusion Energy*, vol. 38, pp. 253–261, Mar. 2019, ISSN: 1572-9591. DOI: 10.1007/s10894-019-00215-7.
- [13] P. Svihra, D. Bren, A. Casolari, J. Cerovsky, P. Dhyani, M. Farnik, O. Ficker, M. Havranek, M. Hejtmanek, Z. Janoska, V. Kafka, P. Kulhanek, V. Linhart, E. Macusova, M. Marcisovska, M. Marcisovsky, J. Mlynar, G. Neue, L. Novotny, V. Svoboda, L. Tomasek, J. Urban, P. Vancura, J. Varju, V. Vrba, and V. Weinzettl, “Runaway electrons diagnostics using segmented semiconductor detectors,” *Fusion Engineering and Design*, vol. 146, pp. 316–319, 2019, SI:SOFT-30, ISSN: 0920-3796. DOI: <https://doi.org/10.1016/j.fusengdes.2018.12.054>. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0920379618308196>.

- [14] O. Grover, J. Kocman, M. Odstrcil, T. Odstrcil, M. Matusu, J. Stockel, V. Svoboda, G. Vondrasek, and J. Zara, “Remote operation of the Golem tokamak for fusion education,” *Fusion Engineering and Design*, vol. 112, pp. 1038–1044, 2016, ISSN: 0920-3796. DOI: 10.1016/j.fusengdes.2016.05.009.
- [15] V. Svoboda, A. Dvornova, R. Dejarnac, M. Prochazka, S. Zaprianov, R. Akhmethanov, M. Bogdanova, M. Dimitrova, Z. Dimitrov, O. Grover, L. Hlavata, K. Ivanov, K. Kruglov, P. Marinova, P. Masherov, A. Mogulkin, J. Mlynar, J. Stockel, and A. Volynets, “Remote operation of the Golem tokamak with hydrogen and helium plasmas,” *Journal of Physics: Conference Series*, vol. 768, no. 1, 2016. DOI: 10.1088/1742-6596/768/1/012002. [Online]. Available: <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84996848706&doi=10.1088%2f1742-6596%2f768%2f1%2f012002&partnerID=40&md5=e2758016f6bdd51be8c02e6f972a374e>.
- [16] M. Gryaznevich, G. V. Oost, J. Stöckel, R. Kamendje, B. Kuteev, A. Melnikov, T. Popov, V. Svoboda, and T. I. C. Teams, “Contribution to fusion research from IAEA coordinated research projects and joint experiments,” *Nuclear Fusion*, vol. 55, no. 10, p. 104019, 2015. DOI: 10.1088/0029-5515/55/10/104019.
- [17] T. Markovic, M. Gryaznevich, I. Duran, V. Svoboda, and R. Panek, “Development of 3D ferromagnetic model of tokamak core with strong toroidal asymmetry,” *Fusion Engineering and Design*, vol. 96-97, pp. 302–305, 2015, ISSN: 0920-3796. DOI: 10.1016/j.fusengdes.2015.03.041. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S0920379615002100>.
- [18] V. Svoboda, J. Kocman, O. Grover, J. Krbec, and J. Stockel, “Remote operation of the vertical plasma stabilization @ the Golem tokamak for the plasma physics education,” *Fusion Engineering and Design*, vol. 96-97, pp. 974–979, 2015, ISSN: 0920-3796. DOI: 10.1016/j.fusengdes.2015.06.044. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S0920379615300740>.
- [19] M. Gryaznevich, V. Svoboda, J. Stockel, A. Sykes, N. Sykes, D. Kingham, G. Hammond, P. Apte, T. Todd, S. Ball, S. Chappell, Z. Melhem, I. Duran, K. Kovarik, O. Grover, T. Markovic, M. Odstrcil, T. Odstrcil, A. Sindlery, G. Vondrasek, J. Kocman, M. Lilley, P. de Grouchy, and H.-T. Kim, “Progress in application of high temperature superconductor in tokamak magnets,” *Fusion Engineering and Design*, vol. 88, no. 9-10, pp. 1593–1596, 2013, ISSN: 0920-3796. DOI: 10.1016/j.fusengdes.2013.01.101. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S0920379613001117>.
- [20] T. Markovic, M. Gryaznevich, I. Duran, V. Svoboda, and G. Vondrasek, “Evaluation of applicability of 2D iron core model for two-limb configuration of Golem tokamak,” *Fusion Engineering and Design*, vol. 88, no. 6-8, pp. 835–838, 2013, ISSN: 0920-3796. DOI: 10.1016/j.fusengdes.2013.02.142. [Online]. Available: <http://www.sciencedirect.com/science/article/pii/S0920379613002573>.
- [21] T. Odstrcil, M. Odstrcil, O. Grover, V. Svoboda, I. Duran, and J. Mlynar, “Low cost alternative of high speed visible light camera for tokamak experiments,” *Review of Scientific Instruments*, vol. 83, no. 10, 10E505, 2012. DOI: 10.1063/1.4731003. [Online]. Available: <http://scitation.aip.org/content/aip/journal/rsi/83/10/10.1063/1.4731003>.
- [22] V. Svoboda, B. Huang, J. Mlynar, G. Pokol, J. Stockel, and G. Vondrasek, “Multi-mode Remote Participation on the Golem Tokamak,” *Fusion Engineering and Design*, vol. 86, no. 6-8, pp. 1310–1314, 2011, ISSN: 0920-3796. DOI: {10.1016/j.fusengdes.2011.02.069}.

## Conference proceedings

- [23] J. Cerovsky, O. Ficker, E. Tomesova, L. Simons, V. Svoboda, J. Mlynar, U. Sheik, M. Hoppe, J. Decker, J. Caloud, V. Weinzettl, M. H. the COMPASS team, and T. team, “Runaway electron studies via hxr spectroscopy at golem, compass and tcv,” in *European Conference on Plasma Diagnostics*, Rethymno, Apr. 2023. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Conferences/ECPD/5th\\_Rethymno\\_2023/poster.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Conferences/ECPD/5th_Rethymno_2023/poster.pdf).
- [24] J. Chlum, S. Abbasi, J. Buryanec, J. Cerovsky, V. Ivanov, M. Lauerova, L. Lobko, S. Malec, P. Macha, F. Papousek, M. Pokorny, V. Svoboda, M. Tunkl, and J. Vinklerek, “Tokamak GOLEM for fusion education - chapter 14,” ser. Europhysics conference abstracts, vol. July, 2023.
- [25] V. Ivanov, M. Varavin, M. Komm, O. Ficker, E. Tomesova, V. Svoboda, and J. Cerovsky, “Runaway electrons measurements by ECE on the GOLEM tokamak,” ser. Europhysics conference abstracts, vol. July, 2023.
- [26] P. Macha, M. Pokorny, D. Kropackova, M. Humpolec, J. Chlum, K. Wen, M. Tunkl, M. Lauerova, J. Brotankova, J. Stockel, V. Svoboda, S. Kulkov, A. Podolnik, J. Caloud, and S. Malec, “Tokamak Golem for fusion education - chapter 13,” ser. Europhysics conference abstracts, vol. July, 2022. [Online]. Available: [https://indico.fusenet.eu/event/28/contributions/164/attachments/178/1152/EPS\\_2022\\_golem\\_article.pdf](https://indico.fusenet.eu/event/28/contributions/164/attachments/178/1152/EPS_2022_golem_article.pdf).
- [27] P. Macha, v. Svoboda, J. Stockel, J. Adamek, and J. Seidl, “Self-induced transport barrier in the helium plasma on the tokamak Golem,” ser. Europhysics conference abstracts, vol. July, 2022. [Online]. Available: [https://indico.fusenet.eu/event/28/contributions/64/attachments/78/1153/EPS\\_2022\\_article.pdf](https://indico.fusenet.eu/event/28/contributions/64/attachments/78/1153/EPS_2022_article.pdf).
- [28] S. Kulkov, M. Marcisovsky, P. Svihra, O. Ficker, J. Cerovsky, E. Macusova, V. Weinzettl, M. Beuzekom, M. Fransen, D. Bren, V. Linhart, V. Svoboda, and M. Tunkl, “Runaway electron study at the COMPASS tokamak using the Timepix3-based silicon pixel detector with SPIDR 10 GBps readout,” ser. Europhysics conference abstracts, vol. July, 2021, P3.1006, ISBN: 979-10-96389-13-1. [Online]. Available: <http://ocs.ciemat.es/EPS2021PAP/pdf/P3.1006.pdf>.

- [29] P. Macha, K. Hromasova, D. Kropackova, M. Lauerova, A. Socha, J. Malinak, D. Cipciar, J. Cecrdle, V. Svoboda, J. Stockel, J. Adamek, F. Papousek, and L. Lobko, "Tokamak Golem for fusion education - chapter 12," ser. Europhysics conference abstracts, vol. July, 2021, P4.1028, ISBN: 979-10-96389-13-1. [Online]. Available: <http://ocs.ciemat.es/EPS2021PAP/pdf/P4.1028.pdf>.
- [30] S. Malec, V. Linhart, and V. Svoboda, "Correlations in signals generated by runaway electrons in the golem tokamak measured using the timepix3 detection modules," in *2021 IEEE Nuclear Science Symposium and Medical Imaging Conference (NSS/MIC)*, 2021, pp. 1–6. DOI: 10.1109/NSS/MIC44867.2021.9875920.
- [31] P. Dhyani, V. Svoboda, V. Istokskaia, J. Mlynář, J. Cerovský, O. Ficker, and V. Linhart, "Design and development of probe for the measurements of runaway electrons inside the Golem tokamak plasma edge," ser. Europhysics conference abstracts, vol. July, 2019, P1.1016, ISBN: 979-10-96389-11-7. [Online]. Available: <http://ocs.ciemat.es/EPS2019PAP/pdf/P1.1016.pdf>.
- [32] O. Grover, V. Svoboda, and J. Stockel, "Online experimentation at the Golem tokamak," in *2019 5th Experiment International Conference (exp.at'19)*, Jun. 2019, pp. 220–225. DOI: 10.1109/EXPAT.2019.8876482. [Online]. Available: <https://ieeexplore.ieee.org/document/8876482>.
- [33] S. Kulkov, P. Mácha, V. Istokskaia, D. Kropáčková, F. Papoušek, J. Adánek, J. Cerovský, O. Ficker, O. Grover, K. Jiráková, J. Stöckel, and V. Svoboda, "Tokamak Golem for fusion education - chapter 10," ser. Europhysics conference abstracts, vol. July, 2019, P1.1068, ISBN: 979-10-96389-11-7. [Online]. Available: <http://ocs.ciemat.es/EPS2019PAP/pdf/P1.1068.pdf>.
- [34] O. Grover and V. Svoboda and J. Stockel, "Remote demonstration of the Golem tokamak," in *2019 5th Experiment International Conference (exp.at'19)*, Jun. 2019, pp. 239–240. DOI: 10.1109/EXPAT.2019.8876584. [Online]. Available: <https://ieeexplore.ieee.org/document/8876584>.
- [35] V. Istokskaia, M. Shkut, J. Cerovsky, M. Farnik, O. Grover, L. Hudec, P. Macha, J. Krbec, V. Svoboda, J. Stockel, and J. Adamek, "Tokamak Golem for fusion education - chapter 9," vol. July, 2018, pp. 261–264. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Conferences/EPS/45th\\_Prague\\_2018/paper.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Conferences/EPS/45th_Prague_2018/paper.pdf).
- [36] V. Linhart, D. Bren, A. Casolari, J. Čerovský, M. Farník, O. Ficker, M. Hetflejš, M. Hron, J. Jakůbek, P. Kulhánek, E. Maciúsová, M. Marčíšovský, J. Mlynář, P. Švihra, V. Svoboda, J. Urban, J. Varju, and V. Vrba, "First measurement of x-rays generated by runaway electrons in tokamaks using a Timepix3 device with 1 mm thick silicon sensor," in *2018 IEEE Nuclear Science Symposium and Medical Imaging Conference Proceedings (NSS/MIC)*, Nov. 2018, pp. 1–9. DOI: 10.1109/NSSMIC.2018.8824534.
- [37] R. Duban, O. Ficker, O. Grover, K. Jiraková, B. Leitl, T. Okonechniková, J. Stockel, V. Svoboda, and G. Vondrasek, "Tokamak Golem for fusion education - chapter 7," in *Europhysics Conference Abstracts. 43th EPS Conference on Plasma Physics*, ser. europhysics conference abstracts, vol. 40A, 2016, ISBN: 2-914771-99-1. [Online]. Available: <http://ocs.ciemat.es/EPS2016PAP/pdf/P5.009.pdf>.
- [38] V. Svoboda, O., Ficker, M. Dimitrova, O. Grover, J. K. J., Krbec, V. Löffelmann, L. Matěna, J. Stöckel, and G. Vondrášek, "Tokamak Golem for fusion education - chapter 6," in *42nd European Physical Society Conference on Plasma Physics*, 2015, ISBN: 2-914771-98-3. [Online]. Available: <http://ocs.ciemat.es/EPS2015PAP/pdf/P2.164.pdf>.
- [39] O. Ficker, O. Grover, J. Kocman, J. Krbe, V. Loffelmann, T. Markovic, M. Matusu, J. Stockel, V. Svoboda, J. Veverka, and G. Vondrasek, "Tokamak Golem for fusion education - chapter 5," in *Europhysics Conference Abstracts. 41th EPS Conference on Plasma Physics*, vol. 38F, 2014, ISBN: 2-914771-90-8. [Online]. Available: <http://ocs.ciemat.es/EPS2014PAP/pdf/P4.141.pdf>.
- [40] D. Hernandez-Arriaga, J. Brotankova, O. Grover, J. Kocman, T. Markovic, M. Odstrcil, T. Odstrcil, T. Ruzickova, J. Stockel, V. Svoboda, and G. Vondrasek, "Tokamak Golem for fusion education - chapter 4," in *Europhysics Conference Abstracts. 40th EPS Conference on Plasma Physics*, vol., 2013, ISBN: 978-1-63266-310-8. [Online]. Available: <http://ocs.ciemat.es/EPS2013PAP/pdf/P2.410.pdf>.
- [41] S. Ball, I. Duran, O. Grover, M. Gryaznevich, J. Kocman, K. Kovarik, T. Markovic, M. Odstrcil, T. Odstrcil, T. Ruzickova, J. Stockel, V. Svoboda, and G. Vondrasek, "First results from tests of high temperature superconductor magnets on tokamak," in *Europhysics Conference Abstracts. 39th EPS Conference on Plasma Physics*, vol. 36F, 2012. [Online]. Available: <http://ocs.ciemat.es/epsicpp2012pap/pdf/P2.052.pdf>.
- [42] V. Svoboda, I. Duran, O. Grover, M. Gryaznevich, J. Kocman, K. Kovarik, T. Markovic, M. Odstrcil, T. Odstrcil, and J. Stockel, "Recent results from Golem tokamak. 'indeed, you can teach an old dog some new tricks.," in *Europhysics Conference Abstracts. 39th EPS Conference on Plasma Physics*, vol. 36F, 2012. [Online]. Available: <http://ocs.ciemat.es/epsicpp2012pap/pdf/P2.059.pdf>.
- [43] E. Bromova, I. Duran, O. Grover, J. Kocman, T. Markovic, M. Odstrcil, T. Odstrcil, O. Pluhar, J. Stockel, V. Svoboda, A. Sindlery, G. Vondrasek, and J. Zara, "The Golem tokamak for fusion education," in *Europhysics Conference Abstracts. 38th EPS Conference on Plasma Physics*, vol. 35G, 2011, ISBN: 2-914771-68-1. [Online]. Available: <http://ocs.ciemat.es/EPS2011PAP/pdf/P1.021.pdf>.
- [44] V. Svoboda and J. Stöckel, "Tokamak Golem remotely for worldwide fusion education," in *Proceedings: SEFI - PTEE 2011*, Hochschule Mannheim - University Of Applied Sciences, 2011, ISBN: 978-3-931569-18-1. [Online]. Available: [http://sefi11.hs-mannheim.de/index.php?option=com\\_content&view=article&id=27&Itemid=27](http://sefi11.hs-mannheim.de/index.php?option=com_content&view=article&id=27&Itemid=27).

- [45] V. Svoboda, J. Mlynar, G. Pokol, D. Réfy, J. Stöckel, and G. Vondrasek, “Former Tokamak CASTOR becomes remotely controllable Golem at the Czech Technical University in Prague,” in *Europhysics Conference Abstracts. 37th EPS Conference on Plasma Physics*, vol. 34A, 2010, ISBN: 2-914771-62-2. [Online]. Available: <http://ocs.ciemat.es/EPS2010PAP/pdf/P2.111.pdf>.

## Master thesis

- [46] S. Malec, “Compton camera for detection of hard x-rays produced on the golem tokamak,” Master Thesis, 2023. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/23MalecStepan.pdf>.
- [47] M. Tunkl, “Development of a new runaway electron diagnostics method based on strip semiconductor detectors,” Master Thesis, 2022. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/22TunklMarek.pdf>.
- [48] D. Cipciar, “Ion and electron temperature study in the edge plasma of the tokamak device,” Master Thesis, 2021. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/21DarioCipciar.pdf>.
- [49] P. Macha, “Edge plasma studies in tokamaks by the mean of advanced electric probes,” Master Thesis, 2020. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/20MachaPetr.pdf>.
- [50] B. Leitl, “Tomografická rekonstrukce profilu vyzařování plazmatu na tokamaku Golem,” Master Thesis, 2019. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/19LeitlBorek.pdf>.
- [51] J. Kocman, “Řízení polohy plazmatického prstence na tokamaku Golem,” Master Thesis, 2015. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/15KocmanJindrich.pdf>.
- [52] L. Matěna, “Microwave interferometry on the tokamak Golem,” Master Thesis, 2015. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/15MatenaLukas.pdf>.
- [53] Ondřej Ficker, “Generation, losses and detection of runaway electrons in tokamaks,” Master Thesis, 2015. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/15FickerOndrej.pdf>.
- [54] T. Markovič, “Measurements of magnetic fields on the tokamak Golem,” Master Thesis, 2012. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/12MarkovicTomas.pdf>.

## Bachelor projects

- [55] Derap Pena Mukti Sari, “The study of the hydrogen plasma breakdown phase in the golem tokamak reactor,” Bachelor project, 2024. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/FromAbroad/24DerapPenaMuktiSari-English.pdf>.
- [56] Jan Buryanec, “Stabilizace proudu plazmatem na tokamaku Golem,” Bachelor project, 2023. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/23BuryanecJan.pdf>.
- [57] M. Vanakova, “Studium oscilací magnetického pole na tokamaku Golem,” Bachelor project, 2023. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/23VanakovaMarie.pdf>.
- [58] J. Chlum, “Implementation of tomographic inversion on the Golem tokamak,” Bachelor project, 2022. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/22ChlumJakub.pdf>.
- [59] A. Kubincova, “Advanced plasma vertical position reconstruction on the Golem tokamak,” Bachelor project, 2021. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/21KubincovaAdela.pdf>.
- [60] J. Malinak, “Electron temperature measurements using rail probe on the tokamak Golem,” Bachelor project, 2021. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/21MalinakJiri.pdf>.
- [61] F. Papousek, “Impact of swept edge plasma potential biasing on turbulence in tokamaks,” Bachelor project, 2020. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/20PapousekFilip.pdf>.
- [62] P. Macha, “Měření parametrů plazmatu pomocí kombinované ball-pen a langmuirovy sondy na tokamaku Golem,” Bachelor project, 2018. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/18MachaPetr.pdf>.
- [63] T. Okonechnikova, “Prezentace tokamaku Golem pomocí technologie X3DOM,” Bachelor project, 2016. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/16OkonechnikovaTatiana.pdf>.
- [64] B. Leitl, “Bolometrická měření na tokamaku Golem,” Bachelor project, 2014. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/14LeitlBorek.pdf>.
- [65] J. Veverka, “Studium počáteční fáze výboje v tokamacích,” Bachelor project, 2014. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/14VeverkaJakub.pdf>.
- [66] M. Matušů, “Virtual model of tokamak Golem with real physical core,” Bachelor project, 2014. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/14MatusuMartin.pdf>.

- [67] R. Duban, “Měření rychlosti toku plazmatu na tokamaku Golem pomocí pole machových sond,” Bachelor project, 2014. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/14DubanRichard.pdf>.
- [68] J. Kocman, “Zpětnovazební řízení polohy na tokamaku Golem,” Bachelor project, 2011. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/11KocmanJindrich.pdf>.
- [69] O. Pluhař, “Interactive model of tokamak Golem,” Bachelor project, 2011. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/11PluharOndrej.pdf>.
- [70] T. Markovič, “Magnetic field configurations and their measurement on tokamak Golem,” Bachelor project, 2010. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/10MarkovicTomas.pdf>.

## Student’s Professional Activities Competition (SOČ)

- [71] M. Pokorný, “Měření a simulace polohy plazmatu na tokamaku golem,” High School Students’ Professional Activities SOČ, 2023. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/23PokornyPolohaPlazmatu.pdf>.
- [72] E. Pumprlová, “Vliv tlaku pracovního plynu na generaci ubíhajících elektronů v tokamaku Golem,” High School Students’ Professional Activities SOČ, 2022. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/22PumprlovaRunaaways.pdf>.
- [73] M. Pokorný, “Sondová měření parametrů okrajového plazmatu na tokamaku Golem s pomocí motorizovaného manipulátoru,” High School Students’ Professional Activities SOČ, 2022. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/22PokornyProbes.pdf>.
- [74] A. Socha, “Poloha zóny vytváření turbulentních struktur v okrajovém plazmatu tokamaku Golem,” High School Students’ Professional Activities SOČ, 2021. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/21Socha\\_sikmostIsat.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/21Socha_sikmostIsat.pdf).
- [75] M. Lauerová, “Měření elektronové teploty na tokamaku Golem elektrickými sondami,” High School Students’ Professional Activities SOČ, 2021. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/21Lauerova\\_ElTeplota.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/21Lauerova_ElTeplota.pdf).
- [76] P. Skála, “Termojaderná fúze a experiment s vysokoteplotním plazmatem,” High School Students’ Professional Activities SOČ, 2021. [Online]. Available: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/21Skala-sondy.pdf>.
- [77] D. Kropáčková, “Stabilizace plazmatu na tokamaku Golem,” High School Students’ Professional Activities SOČ, 2020. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/20Kropackova\\_Stabilizace.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/20Kropackova_Stabilizace.pdf).
- [78] M. Horák, “Profil elektronové teploty v komoře tokamaku,” High School Students’ Professional Activities SOČ, 2020. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/20Horak\\_ElTeplota.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/20Horak_ElTeplota.pdf).
- [79] D. Kropáčková, “Měření rotace plazmatu dvojitou tunelovou sondou na tokamaku Golem,” High School Students’ Professional Activities SOČ, 2019. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/19Kropackova\\_RotacePlazmatu.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/19Kropackova_RotacePlazmatu.pdf).
- [80] M. Grof, “Poloidální rotace plazmatu na tokamaku Golem,” High School Students’ Professional Activities SOČ, 2014. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/14Grof\\_RotacePlazmatu.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/14Grof_RotacePlazmatu.pdf).
- [81] M. Cvan, “Termojaderná fúze,” High School Students’ Professional Activities SOČ, 2013. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/13Cvan\\_Fuze.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/13Cvan_Fuze.pdf).
- [82] O. Grover, “Měření hustoty plazmatu interferometrickou metodou na tokamaku Golem,” High School Students’ Professional Activities SOČ, 2011. [Online]. Available: [http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/11Grover\\_HustotaPlazmatu.pdf](http://golem.fjfi.cvut.cz/wiki/Presentations/Students/HighSchoolActivities/11Grover_HustotaPlazmatu.pdf).

## Miscellaneous

- [83] The Golem Tokamak contributors, *Magnetic confinement of high temperature plasma at the Golem tokamak*, <http://golem.fjfi.cvut.cz/wiki/Education/GMinstructions/extracts/GeneralHandsOn/docum.pdf>, [Online; accessed 2-January-2020], 2020.
- [84] B. Huang and V. Nikolaeva, *Global tokamak experiment*, <http://tokamakglobal.com/>, 2010.
- [85] ITER news, *Launch of the world’s first global tokamak experiment*, <http://www.iter.org/newsline/156/512>, 2010.
- [86] Jan Mlynář, *Golem history*, <http://golem.fjfi.cvut.cz/wiki/History/Articles/GolemHistoryHM.pdf>, [Online; accessed 2-January-2019], 2010.
- [87] Tokamak Golem contributors, *Tokamak Golem at the Czech Technical University in Prague*, <http://golem.fjfi.cvut.cz>, 2007.

## Unofficial articles (without GOLEM cooperation/authors)

- [88] J. Chandrasekaran and S. Jayaraman, “Magnetohydrodynamic mode identification for Golem mirnov coil signals using singular value decomposition and multichannel variational mode decomposition method for analyzing time-frequency,” *Journal of fusion energy*, vol. 41, no. 2, Dec. 2022, ISSN: 0164-0313. DOI: 10.1007/s10894-022-00329-5.
- [89] J. Chandrasekar, S. Madhawa, and J. Sangeetha, “Data-driven disruption prediction in Golem tokamak using ensemble classifiers,” *Journal of Intelligent & Fuzzy Systems*, vol. 39, pp. 8365–8376, 2020. DOI: 10.3233/JIFS-189155.
- [90] H. Faridyousefi, M. Salem, and M. Ghoranneviss, “MHD mode identification from mirnov coils signals in tokamak via combination of singular value decomposition and Hilbert–Huang transform analysis methods,” *Journal of Fusion Energy*, vol. 39, pp. 1–9, 2020. DOI: 10.1007/s10894-020-00273-2.