

# The GOLEM tokamak bibliography (IAEA CRP final report)

The tokamak GOLEM team

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## Official GOLEM Articles

- [Cer+22] J. Cerovsky et al. “Progress in HXR diagnostics at Golem and COMPASS tokamaks”. In: *Journal of Instrumentation* 17.01 (2022), p. C01033. DOI: 10.1088/1748-0221/17/01/c01033. URL: <https://doi.org/10.1088/1748-0221/17/01/c01033>.
- [Kul+22] S. Kulkov et al. “Detection of runaway electrons at the COMPASS tokamak using a Timepix3-based semiconductor detector”. In: *Journal of Instrumentation* 17.02 (2022), P02030. DOI: 10.1088/1748-0221/17/02/p02030. URL: <https://doi.org/10.1088/1748-0221/17/02/p02030>.
- [Sar+21a] G Sarancha et al. “Magnetic turbulence and long-range correlation studies in the Golem tokamak”. In: *Journal of Physics: Conference Series* 2055.1 (2021), p. 012003. DOI: 10.1088/1742-6596/2055/1/012003. URL: <https://doi.org/10.1088/1742-6596/2055/1/012003>.
- [Sar+21b] G.A. Sarancha et al. “Hydrogen and helium discharges in the Golem tokamak”. In: *Problems Of Atomic Science And Technology, Ser. Thermonuclear Fusion* 4 (2021), pp. 92–110. DOI: 10.21517/0202-3822-2021-44-4-92-110. URL: <https://doi.org/10.21517/0202-3822-2021-44-4-92-110>.
- [Siu+21] Y. Siusko et al. “Breakdown phase in the Golem tokamak and its impact on plasma performance”. In: *Ukrainian Journal of Physics* 66.3 (2021), pp. 231–239. URL: <https://ujp.bitp.kiev.ua/index.php/ujp/article/view/2020180>.
- [Gry+20] M. Gryaznevich et al. “Contribution of joint experiments on small tokamaks in the framework of IAEA coordinated research projects to mainstream fusion research”. In: *Plasma Science and Technology* 22.5 (2020), p. 055102. DOI: 10.1088/2058-6272/ab6d4d. URL: <https://doi.org/10.1088/2058-6272/ab6d4d>.
- [Nov+20] L. Novotny et al. “Runaway electron diagnostics using silicon strip detector”. In: *Journal of Instrumentation* 15.07 (2020), pp. C07015–C07015. DOI: 10.1088/1748-0221/15/07/c07015. URL: <https://doi.org/10.1088/1748-0221/15/07/c07015>.
- [Dhy+19b] P. Dhyani et al. “Study of Runaway Electrons in Golem Tokamak”. In: *Journal of Instrumentation* 14.09 (2019), pp. C09029–C09029. DOI: 10.1088/1748-0221/14/09/c09029. URL: <https://doi.org/10.1088/1748-0221/14/09/c09029>.
- [Sto+19] J. Stockel et al. “Operational Domain in Hydrogen Plasmas on the Golem Tokamak”. In: *Journal of Fusion Energy* (2019). ISSN: 1572-9591. DOI: 10.1007/s10894-019-00215-7.
- [Svi+18] P. Svihra et al. “Runaway electrons diagnostics using segmented semiconductor detectors”. In: *Fusion Engineering and Design* (2018). ISSN: 0920-3796. DOI: 10.1016/j.fusengdes.2018.12.054.

## Conference proceedings

- [Mac+22a] P. Macha et al. “Self-induced transport barrier in the helium plasma on the tokamak Golem”. In: vol. July. Europhysics conference abstracts. 2022. URL: [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).
- [Mac+22b] P. Macha et al. “Tokamak Golem for fusion education - chapter 13”. In: vol. July. Europhysics conference abstracts. 2022. URL: [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).
- [Mac+21] P. Macha et al. “Tokamak Golem for fusion education - chapter 12”. In: vol. July. Europhysics conference abstracts. 2021, P4.1028. ISBN: 979-10-96389-13-1. URL: <http://ocs.ciemat.es/EPS2021PAP/pdf/P4.1028.pdf>.
- [Dhy+19a] P. Dhyani et al. “Design and development of probe for the measurements of runaway electrons inside the Golem tokamak plasma edge”. In: vol. July. Europhysics conference abstracts. 2019, P1.1016. ISBN: 979-10-96389-11-7. URL: <http://ocs.ciemat.es/EPS2019PAP/pdf/P1.1016.pdf>.

- [GSS19] O. Grover, V. Svoboda, and J. Stockel. “Online experimentation at the Golem tokamak”. In: *2019 5th Experiment International Conference (exp.at'19)*. 2019, pp. 220–225. DOI: 10.1109/EXPAT.2019.8876482. URL: <https://ieeexplore.ieee.org/document/8876482>.
- [Kul+19] S. Kulkov et al. “Tokamak Golem for fusion education - chapter 10”. In: vol. July. Europhysics conference abstracts. 2019, P1.1068. ISBN: 979-10-96389-11-7. URL: <http://ocs.ciemat.es/EPS2019PAP/pdf/P1.1068.pdf>.
- [O. 19] O. Grover and V. Svoboda and J. Stockel. “Remote demonstration of the Golem tokamak”. In: *2019 5th Experiment International Conference (exp.at'19)*. 2019, pp. 239–240. DOI: 10.1109/EXPAT.2019.8876584. URL: <https://ieeexplore.ieee.org/document/8876584>.
- [Ist+18] V. Istokskaia et al. “Tokamak Golem for fusion education - Chapter 9”. In: vol. July. 2018, pp. 261–264. URL: [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).
- [Lin+18] V. Linhart et al. “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)*. 2018, pp. 1–9. DOI: 10.1109/NSSMIC.2018.8824534.

## Master thesis

- [M. 22b] M. Tunkl. “Development of a new runaway electron diagnostics method based on strip semiconductor detectors”. Master Thesis. 2022. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/22TunklMarek.pdf>.
- [D. 21] D. Cipciar. “Ion and electron temperature study in the edge plasma of the tokamak device”. Master Thesis. 2021. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/21DarioCipciar.pdf>.
- [P. 20] P. Macha. “Edge plasma studies in tokamaks by the mean of advanced electric probes.” Master Thesis. 2020. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/MasterThesis/20MachaPetr.pdf>.

## Bachelor projects

- [J. 22] J. Chlum. “Implementation of tomographic inversion on the Golem tokamak.” Bachelor project. 2022. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/22ChlumJakub.pdf>.
- [J. 21] J. Malinak. “Electron temperature measurements using rail probe on the tokamak Golem.” Bachelor project. 2021. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/21MalinakJiri.pdf>.
- [F. 20] F. Papousek. “Impact of swept edge plasma potential biasing on turbulence in tokamaks.” Bachelor project. 2020. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/20PapousekFilip.pdf>.
- [P. 18] P. Macha. “Měření parametrů plazmatu pomocí kombinované ball-pen a langmuirovy sondy na tokamaku Golem.” Bachelor project. 2018. URL: <http://golem.fjfi.cvut.cz/wiki/Presentations/Students/BachelorProjects/18MachaPetr.pdf>.

## Unofficial articles (without GOLEM cooperation/authors)

- [CJ22] 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”. In: *Journal of fusion energy* 41.2 (2022). ISSN: 0164-0313. DOI: 10.1007/s10894-022-00329-5.