

Jméno, příjmení, titul žadatele:
Given name, surname, academic degree of student:

Ing. Zbyněk Hubka

Seznam publikovaných prací / List of publications:

Hlavní autor / Main authorship:

- [1] **Hubka, Z.**, R. Antipenkov, R. Boge, E. Erdman, M. Greco, J. T. Green, M. Horáček, K. Majer, T. Mazanec, P. Mazůrek, J. A. Naylor, J. Novák, V. Šobr, P. Strkula, M. Torun, B. Tykalewicz, P. Bakule, and B. Rus, “120 mJ, 1 kHz, picosecond laser at 515 nm,” *Opt. Lett.*, vol. 46, no. 22, pp. 5655–5658, Nov. 2021. DOI: [10.1364/OL.440448](https://doi.org/10.1364/OL.440448).
- [2] **Hubka, Z.**, J. Novák, I. Majerová, J. T. Green, P. K. Velpula, R. Boge, R. Antipenkov, V. Šobr, D. Kramer, K. Majer, J. A. Naylor, P. Bakule, and B. Rus, “Mitigation of laser-induced contamination in vacuum in high-repetition-rate high-peak-power laser systems,” *Appl. Opt.*, vol. 60, no. 3, pp. 533–538, Jan. 2021. DOI: [10.1364/AO.414878](https://doi.org/10.1364/AO.414878).

Spoluautor / Co-authorship:

- [3] M. Horáček, L. Indra, J. T. Green, J. A. Naylor, B. Tykalewicz, J. Novák, F. Batysta, T. Mazanec, J. Horáček, R. Antipenkov, **Hubka, Z.**, R. Boge, P. Bakule, and B. Rus, “Multi-channel, fiber-based seed pulse distribution system for femtosecond-level synchronized chirped pulse amplifiers,” *Review of Scientific Instruments*, vol. 88, no. 1, p. 013 109, 2017. DOI: [10.1063/1.4974272](https://doi.org/10.1063/1.4974272).
- [4] R. Boge, J. Horáček, P. Mazůrek, J. A. Naylor, J. T. Green, **Hubka, Z.**, V. Šobr, J. Novák, F. Batysta, R. Antipenkov, P. Bakule, and B. Rus, “Robust method for long-term energy and pointing stabilization of high energy, high average power solid state lasers,” *Review of Scientific Instruments*, vol. 89, no. 2, p. 023 113, 2018. DOI: [10.1063/1.5018713](https://doi.org/10.1063/1.5018713).
- [5] J. Novák, J. T. Green, T. Metzger, T. Mazanec, B. Himmel, M. Horáček, **Hubka, Z.**, R. Boge, R. Antipenkov, F. Batysta, J. A. Naylor, P. Bakule, and B. Rus, “Thin disk amplifier-based 40 mJ, 1 kHz, picosecond laser at 515 nm,” *Opt. Express*, vol. 24, no. 6, pp. 5728–5733, Mar. 2016. DOI: [10.1364/OE.24.005728](https://doi.org/10.1364/OE.24.005728).
- [6] F. Batysta, R. Antipenkov, J. Novák, J. T. Green, J. A. Naylor, J. Horáček, M. Horáček, **Hubka, Z.**, R. Boge, T. Mazanec, B. Himmel, P. Bakule, and B. Rus, “Broadband OPCPA system with 11 mJ output at 1 kHz, compressible to 12 fs,” *Opt. Express*, vol. 24, no. 16, pp. 17 843–17 848, Aug. 2016. DOI: [10.1364/OE.24.017843](https://doi.org/10.1364/OE.24.017843).
- [7] L. Indra, F. Batysta, P. Hříbek, J. Novák, **Hubka, Z.**, J. T. Green, R. Antipenkov, R. Boge, J. A. Naylor, P. Bakule, and B. Rus, “Picosecond pulse generated supercontinuum as a stable seed for OPCPA,” *Opt. Lett.*, vol. 42, no. 4, pp. 843–846, Feb. 2017. DOI: [10.1364/OL.42.000843.95](https://doi.org/10.1364/OL.42.000843.95)

Selected Conferences

- [8] **Hubka, Z.**, R. Antipenkov, R. Boge, A. Špaček, J. Novák, M. Horáček, P. Mazurek, K. Majer, B. Tykalewicz, M. Torun, J. T. Green, J. A. Naylon, P. Bakule, and B. Rus, “Optimization of pump lasers for high-energy OPCPA system,” in *High Power Lasers and Applications*, J. Hein, T. J. Butcher, P. Bakule, C. L. Haefner, G. Korn, and L. O. Silva, Eds., International Society for Optics and Photonics, vol. 11777, SPIE, 2021, pp. 17–23.
- [9] **Hubka, Z.**, R. Boge, F. Batysta, R. Antipenkov, J. Novák, M. Greco, E. Erdman, A. Špaček, L. Indra, K. Majer, J. T. Green, J. A. Naylon, P. Bakule, and B. Rus, “High energy, high average power, nonlinear frequency conversion and parametric amplification of picosecond pulses in vacuum,” in *Nonlinear Optics (NLO)*, Optical Society of America, 2019, NTh2B.7. DOI: [10.1364/NLO.2019.NTh2B.7](https://doi.org/10.1364/NLO.2019.NTh2B.7).
- [10] **Hubka, Z.**, R. Boge, J. Novák, J. T. Green, M. Greco, R. Antipenkov, F. Batysta, V. Šobr, J. A. Naylon, P. Bakule, and B. Rus, “Picosecond thin-disk pump laser system for high energy OPCPA,” in *Ultrafast Optics 2017*, International Society for Optics and Photonics, vol. 10606, SPIE, 2018, p. 93.
- [13] R. Antipenkov, F. Batysta, R. Boge, E. Erdman, M. Greco, J. T. Green, **Hubka, Z.**, L. Indra, K. Majer, T. Mazanec, P. Maz ůrek, J. Naylon, J. Novák, V. Šobr, A. Špaček, M. Torun, B. Tykalewicz, P. Bakule, and B. Rus, “The current commissioning results of the Allegra kilohertz high-energy laser system at ELI-Beamlines,” in *Laser Congress 2019 (ASSL, LAC, LS&C)*, Optical Society of America, 2019, ATh1A.6. DOI: [10.1364/ASSL.2019.ATh1A.6](https://doi.org/10.1364/ASSL.2019.ATh1A.6).
- [14] R. Boge, J. Horáček, P. Maz ůrek, J. A. Naylon, J. Novák, F. Batysta, **Hubka, Z.**, V. Šobr, R. Antipenkov, J. T. Green, P. Bakule, and B. Rus, “Active cavity stabilization for high energy thin disk regenerative amplifier,” in *High-Power, High-Energy, and High-Intensity Laser Technology III*, International Society for Optics and Photonics, vol. 10238, SPIE, 2017, pp. 46–51. DOI: [10.1117/12.2270607](https://doi.org/10.1117/12.2270607).
- [15] P. Bakule, R. Antipenkov, J. T. Green, J. Novák, F. Batysta, B. Rus, R. Boge, **Hubka, Z.**, J. A. Naylon, M. Horáček, J. Horáček, P. Strkula, D. Snopek, L. Indra, and B. Tykalewicz, “Development of high energy, sub-15 fs OPCPA system operating at 1 kHz repetition rate for ELI-Beamlines facility,” in *Research Using Extreme Light: Entering New Frontiers with Petawatt-Class Lasers III*, International Society for Optics and Photonics, vol. 10241, SPIE, 2017, pp. 21–29. DOI: [10.1117/12.2270598](https://doi.org/10.1117/12.2270598).
- [16] R. Antipenkov, F. Batysta, R. Boge, et al., “The construction of Allegra kilohertz femtosecond laser system at ELI-Beamlines,” in *Short-pulse High-energy Lasers and Ultrafast Optical Technologies*, International Society for Optics and Photonics, vol. 11034, SPIE, 2019, pp. 58–63. DOI: [10.1117/12.2524436](https://doi.org/10.1117/12.2524436).
- [17] J. Novák, P. Bakule, J. T. Green, **Hubka, Z.**, and B. Rus, “100 mJ thin disk regenerative amplifier at 1 kHz as a pump for picosecond OPCPA,” in *CLEO: 2015*, Optical Society of America, 2015, STu4O.4. DOI: [10.1364/CLEO_SI.2015.STu4O.4](https://doi.org/10.1364/CLEO_SI.2015.STu4O.4).