



## České vysoké učení technické v Praze

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### Studium v doktorském studijním programu

#### PUBLIKAČNÍ LIST

Jméno doktoranda: Ing. Josef Cupal

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Školitel, pracoviště: Prof. Ing. Václav Kubeček, DrSc., KFE FJFI ČVUT

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#### **Publikace se vztahem k tématu disertační práce:**

- v impaktovaných časopisech
  - **J. Cupal**, T. Spinka, E. Sistrunk, B. Rus, and C. Häfner, “Temporal prepulse contrast degradation in high-intensity CPA lasers from anisotropy of amplifier gain media,” *Appl. Opt.* 60, 8408 (2021).
  - T. Chagovets, J. Viswanathan, M. Tryus, F. Grepl, A. Velyhan, S. Stanček, L. Giuffrida, F. Schillaci, **J. Cupal**, L. Koubíková, D. Garcia, J. Manzagol, P. Bonnay, F. Souris, D. Chatain, A. Girard, and D. Margarone, “A Cryogenic Hydrogen Ribbon for Laser Driven Proton Acceleration at Hz-level Repetition Rate,” *Front. Phys.* 9 (2022).
- v recenzovaných (neimpaktovaných) časopisech
  - M. Tryus, F. Grepl, T. Chagovets, A. Velyhan, L. Giuffrida, S. Stanček, V. Kantarelou, V. Istokskaja, F. Schillaci, M. Žáková, J. Pšikal, M. Nevrkla, C. Lazzarini, G. Grittani, L. Goncalves, M. Nawaz, **J. Cupal**, L. Koubíková, S. Buck, and D. Margarone, “TERESA Target Area at ELI Beamlines,” *Quantum Beam Sci.* 4, 37 (2020).
- příspěvky na konferencích, ve sbornících abstraktů
  - **J. Cupal**, T. Spinka, E. Sistrunk, B. Rus, and C. Haefner, “Temporal pre-pulse generation in high-intensity CPA lasers from imperfect domain orientation in anisotropic crystals,” in *Shortpulse High-energy Lasers and Ultrafast Optical Technologies*, vol. 11034 P. Bakule and C. L. Haefner, eds., International Society for Optics and Photonics (SPIE, 2019), pp. 24 – 33.
  - C. L. Haefner, A. Bayramian, S. Betts, R. Bopp, S. Buck, **J. Cupal**, M. Drouin, A. Erlandson, J. Horáček, J. Horner, J. Jarboe, K. Kasl, D. Kim, E. Koh, L. Koubíková, W. Maranville, C. Marshall, D. Mason, J. Menapace, P. Miller, P. Mazurek, A. Naylon, J. Novák, D. Peceli, P. Rosso, K. Schaffers, E. Sistrunk, D. Smith, T. Spinka, J. Stanley, R. Steele, C. Stolz, T. Suratwala, S. Telford, J. Thoma, D. VanBlarcom, J. Weiss, and P. Wegner, “High average power, diode pumped petawatt laser systems: a new generation of lasers enabling precision science and commercial applications,” in *Research Using Extreme Light: Entering New Frontiers with Petawatt-Class Lasers III*, vol. 10241 G. Korn and L. O. Silva, eds., International Society for Optics and Photonics (SPIE, 2017), pp. 1 – 5.

- T. Spinka, E. Sistrunk, A. Bayramian, J. Armstrong, S. Baxamusa, S. Betts, D. Bopp, S. Buck, K. Charron, **J. Cupal**, R. Demaret, R. Deri, J.-M. Nicola, A. Erlandson, E. Fulkerson, C. Gates, J. Horner, J. Horáček, J. Jarboe, and C. Haefner, “Commissioning results of the world’s first diode-pumped 10 Hz PW laser,” in 2017 Conference on Lasers and Electro-Optics Europe European Quantum Electronics Conference (CLEO/Europe-EQEC), (2017), pp. 1–1.
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- R. Antipenkov, J. Bartoniček, F. Batysta, R. Baše, R. Boge, S. Buck, **J. Cupal**, M. A. Drouin, M. Ďurák, B. Himmel, T. Havlíček, P. Homer, A. Honsa, M. Horáček, P. Hříbek, J. Hubáček, Z. Hubka, G. Kalinchenko, K. Kasl, L. Indra, P. Korous, M. Košelja, L. Koubíková, M. Laub, T. Mazanec, A. Meadows, J. Novák, D. Peceli, J. Polan, D. Snopek, V. Šobr, P. Trojek, B. Tykalewicz, P. Velpula, E. Verhagen, Vyhlička, J. Weiss, C. Haefner, A. Bayramian, S. Betts, A. Erlandson, J. Jarboe, G. Johnson, J. Horner, D. Kim, E. Koh, C. Marshall, D. Mason, E. Sistrunk, D. Smith, T. Spinka, J. Stanley, C. Stolz, T. Suratwala, S. Telford, T. Ditmire, E. Gaul, M. Donovan, C. Frederickson, G. Friedman, D. Hammond, D. Hidinger, G. Chériaux, A. Jochmann, M. Kepler, C. Malato, M. Martinez, T. Metzger, M. Schultze, P. Mason, K. Ertel, A. Lintern, C. Edwards, C. Hernandez-Gomez, and J. Collier, “ELI-beamlines: progress in development of next generation short-pulse laser systems,” in Research Using Extreme Light: Entering New Frontiers with Petawatt-Class Lasers III, vol. 10241 G. Korn and L. O. Silva, eds., International Society for Optics and Photonics (SPIE, 2017), pp. 14 – 21.

### **Publikace nevztahující se k tématu disertační práce:**

- příspěvky na konferencích, ve sbornících abstraktů
  - A. R. Meadows, **J. Cupal**, P. Hříbek, M. Ďurák, D. Kramer, and B. Rus, “Femtosecond optical parametric amplification in BBO and KTA driven by a Ti:sapphire laser for LIDT testing and diagnostic development,” in High-Power, High-Energy, and High-Intensity Laser Technology III, vol. 10238 J. Hein, ed., International Society for Optics and Photonics (SPIE, 2017), pp. 16 –25.
  - M. Ďurák, P. K. Velpula, D. Kramer, **J. Cupal**, T. Medřík, J. Hřebíček, J. Golasowski, D. Peceli, M. Kozlová, and B. Rus, “Laser-induced damage threshold tests of ultrafast multilayer dielectric coatings in various environmental conditions relevant for operation of ELI beamlines laser systems,” (SPIE, 2016), pp. 1 – 6
  - M. Ďurák, D. Kramer, P. K. Velpula, A. R. Meadows, **J. Cupal**, and B. Rus, “Comparison of different LIDT testing protocols for PW and multi-PW class high-reflectivity coatings,” in Laser-Induced Damage in Optical Materials 2016, vol. 10014 G. J. Exarhos, V. E. Gruzdev, J. A. Menapace, D. Ristau, and M. Soileau, eds., International Society for Optics and Photonics (SPIE, 2016), pp. 70 – 82.
  - M. Ďurák, D. Kramer, P. K. Velpula, **J. Cupal**, T. Medřík, J. Hřebíček, J. Golasowski, D. Peceli, L. Fekete, V. Štěpán, M. Kozlová, and B. Rus, “Ultrafast beam dump materials and mirror coatings tested with the ELI beamlines LIDT test station,” in Laser-Induced Damage in Optical Materials: 2015, vol. 9632 G. J. Exarhos, V. E. Gruzdev, J. A. Menapace, D. Ristau, and M. Soileau, eds., International Society for Optics and Photonics (SPIE, 2015), pp. 254 – 265.