

Přehled publikační činnosti

prof. Ing. Ivo Doležel, CSc.

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|--|------------------|
| 1. Skripta (i elektronická) | 8 |
| 2. Vědecké monografie | 2 (vydané v USA) |
| 3. Vědecké práce - v impaktovaných časopisech | cca 58 |
| v mezinárodních recenzovaných časopisech | cca 40 |
| ve sbornících mezinárodních konferencí | cca 330 |
| ostatní | cca 20 |
| 4. Citace prací ve WoS bez autocitací | více než 80 |
| 5. Citace podle databáze Scopus | více než 400 |
| 6. Vyzvané přednášky v zahraničí (USA, Belgie, Německo, Polsko, Rusko, Japonsko, Itálie – na konferencích a na univerzitách) | cca 18 |

Nejvýznamnější publikace

2 monografie vydané v USA

1. Šolín, P., Segeth, K., **Doležel, I.**: Higher-Order Finite Element Methods. Chapman & Hall/CRC Press, Boca Raton, USA, 2003.
2. **Doležel, I.**, Karban, P., Šolín, P.: Integral Methods in Low-Frequency Electromagnetics. Wiley, Hoboken USA 2009.

Impaktované články: přes 55. Za posledních 6 let uvádím nejdůležitější z nich

- [01] **Doležel, I.**, Karban, P., Ulrych B., Pantelyat, M., Matyukhin, Y., Gontarowsky, P., Shulzhenko, N.: Limit Operation Regimes of Actuators Working on Principle of Thermoelasticity. IEEE Trans. Magn. 44, 2008, No. 6, pp. 810–813. **IF 1.129.**
- [02] Šolín, P., Červený, J., **Doležel, I.**: Arbitrary-Level Hanging Nodes and Automatic Adaptivity in the *hp*-FEM. Mathematics and Computers in Simulation, Vol. 77, 2008, pp. 117–132. **IF 0.930.**
- [03] Kůs, P., Šolín, P., **Doležel, I.**: Solution of 3D Singular Electrostatics Problems Using Adaptive *hp*-FEM. COMPEL 27, 2008, No. 4, pp. 939–945. **IF 0.441.**
- [04] **Doležel, I.**, Dubcová, L., Karban, P., Červený, J., Šolín, P.: Inductively Heated Incompressible Flow of Electrically Conductive Liquid in Pipe. IEEE Trans. Magn. 46, 2010, No. 8, pp. 2899–2902. **IF 1.052.**
- [05] **Doležel, I.**, Karban, P., Kropík P., Pánek, D.: Accurate Control of Position by Induction Heating-Produced Thermoelasticity. IEEE Trans. Magn. 46, 2010, No. 8, pp. 2888–2891. **IF 1.052.**
- [06] **Doležel, I.**, Donátová, M., Karban, P., Šolín, P.: Integrodifferential Approach to Solution of Eddy Currents in Linear Structures with Motion. MATCOM 80/8, 2010, pp. 1636–1646. **IF 0.812.**
- [07] **Doležel, I.**, Kotlan, V., Krónerová, E., Ulrych, B.: Induction Thermoelastic Actuator with Controllable Operation Regime. COMPEL 29, 2010, No. 4, pp. 1004–1014. **IF 0.386.**
- [08] Pantelyat, M., Shulzhenko, N., Matyukhin, Y., Gontarowsky, P., **Doležel, I.**, Ulrych B.: Numerical Simulation of Electrical Engineering Devices: Magneto-thermo-mechanical Coupling. COMPEL 30, 2011, No. 4, pp. 1189–1204. **IF 0.301.**
- [09] Karban, P., Mach, F., **Doležel, I.**, Barglik, J.: Higher-order Finite Element Modeling of Rotational Induction Heating of Nonferromagnetic Cylindrical Billets. COMPEL 30, 2011, No. 5, pp. 1517–1527. **IF 0.301.**

- [10] **Doležel, I.**, Ulrych, B., Kotlan, V.: Combined Actuator for Accurate Setting of Position Based on Thermoelasticity Produced by Induction Heating. *IEEE Trans. Ind. Appl.* 47, 2011, No. 5, pp. 810–813. **IF 1.657.**
- [11] Karban, P., Kotlan, V., **Doležel, I.**: Numerical Model of Induction Shrink Fit in Monolithic Formulation. *IEEE Trans. Magn.* 48, 2012, No. 2, pp. 315–318. **IF 1.422.**
- [12] Mach, F., Karban, P., **Doležel, I.**: Induction Heating of Cylindrical Nonmagnetic Ingots by Rotation in Static Magnetic Field Generated by Permanent Magnets. *Journal of Computational and Applied Mathematics* 236, 2012, No. 18, pp. 4732–4744. **IF 0.989.**
- [13] Karban, P., Mach, F., **Doležel, I.**: Hard-Coupled Model of Local Direct Resistance Heating of Thin Sheets. *Journal of Computational and Applied Mathematics*, Vol. 236, 2012, No. 18, pp. 4725–4731. **IF 0.989.**
- [14] **Doležel, I.**, Karban, P., Kropík, P., Kotlan, V., Pánek, D.: Optimized Control of Field Current in Thermoelastic Actuator for Accurate Setting of Position. *Appl. Math. Comput.* 219, 2013, No. 13, pp. 7187–7193. **IF 1.349.**
- [15] **Doležel, I.**, Kropík, P., Ulrych, B.: Induction Heating of Thin Metal Plates in Time-Varying External Magnetic Field Solved as Nonlinear Hard-Coupled Problem. *Appl. Math. Comput.* 219, 2013, No. 13, pp. 7159–7169. **IF 1.349.**
- [16] Karban, P., Mach, F., **Doležel, I.**: Modeling of Rotational Induction Heating of Nonmagnetic Cylindrical Billets. *Appl. Math. Comput.* 219, 2013, No. 13, pp. 7170–7180. **IF 1.349.**
- [17] Karban, P., Mach, F., **Doležel, I.**: Advanced Adaptive Algorithms in 2D Finite Element Method of Higher Order of Accuracy. *COMPEL* 32, 2013, No. 3, pp. 834–849. **IF 0.281.**
- [18] Karban, P., Mach, F., Kůs, P., Pánek, D., **Doležel, I.**: Numerical Solution of Coupled Problems Using Code Agros2D. *Computing* 95, 2013, S381–S408. **IF 0.807.**
- [19] Mach, F., Kůs, P., Karban, P., **Doležel, I.**: Optimization of the System for Induction Heating of Nonmagnetic Cylindrical Billets in Rotating Magnetic Field Produced by Permanent Magnets. *Computing* 95, 2013, S537–S552. **IF 0.807.**
- [20] **Doležel, I.**, Kotlan, V. Ulrych, B.: Numerical Modelling of Cylindrical Induction Shrink Fits. *Computing* 95, 2013, S445–S458. **IF 0.807.**
- [21] Mach, F., Štarman, V., Karban, P., **Doležel, I.**, Kůs, P.: Finite-Element 2-D Model of Induction Heating of Rotating Billets in System of Permanent Magnets and its Experimental Verification. *IEEE Trans. Ind. Electronics* 61, 2014, No 5, pp. 2584–2590. **IF 6.5.**
- [22] Di Barba, P., **Dolezel, I.**, Karban, P., Kus, P., Mognaschi, M.E., Savini, A.: Multiphysics Field Analysis and Multiobjective Design Optimization: A Benchmark Problem. *Inverse Problems in Science and Engineering*. DOI: 10.1080/17415977.2013.860590. Published online: 19th Nov 2013. **IF 0.754.**
- [23] Mach, F., Karban, P., **Dolezel, I.**, Sima, P., Jelinek, Z.: Model of Induction Heating of Rotating Non-magnetic Billets and its Experimental Verification. *IEEE Trans. Magn.* 50 (2014), accepted. **IF 1.422.**
- [24] Di Barba, P., **Dolezel, I.**, Mognaschi, M.E., Savini, A., Karban, P.: Nonlinear Multiphysics Analysis and Multiobjective Optimization in Electroheating Applications. *IEEE Trans. Magn.* 50 (2014), accepted. **IF 1.422.**
- [25] Barglik, J., Smalcerz, A., Przulucki, R., **Doležel, I.**: 3D Modeling of Induction Hardening of Gear Wheels. *Journal of Computational and Applied Mathematics*, 2014, accepted. **IF 0.989.**