

Publications

- Stará J., Regularity results for non-linear elliptic systems in two dimensions, *Annali Scuola Norm. Sup. Pisa* 25,1 (1971), 163–190.
- Nečas J., Stará J., Principio di massimo per i sistemi ellittici quasi-lineari non diagonali, *Boll. unione Mat. It.* 6 (1972), 1–10.
- Stará J., Nirenbergova věta a její aplikace na problém vnitřní regularity řešení aliptických parciálních rovnic, *Acta Polytechnica* 4 (1973), 25–59.
- John O., Stará J., Regularity results for nonlinear integro-differential operators in two dimensions, *Theory of Nonlinear Operators, Proc. Summerschool, Neuendorf (Hidensee), GDR, October 1972.,* Schreiftentr. Zentralinst. Math. Mech. Akad. Wiss., Akademie-Verlag, Berlin, DDR 20 (1974), 117–123.
- Souček J., Souček V., Stará J., On 19. and 20. Hilbert problem, *Pokroky mat., fyz. a astr.* 22,3 (1977), 139–150.
- Nečas J., Stará J., Švarc R., Classical solutions to a second order nonlinear elliptic system in R^3 , *Annali Scuola Norm. Sup. Pisa* 5 (1978), 605–631.
- Doktor P., Fučík S., John O., Kučera M., Stará J., Mathematical solution of transsonic flow and functional-analytical properties of transsonic operator, (in Czech), Research report SVÚSS Praha-Běchovice (1978).
- John O., Nečas J., Stará J., Counterexample to the regularity of weak solution of elliptic systems, *Comment. Math. Univ. Carolinae* 21,1 (1980), 143–154.
- Bubník J., Fučík S., John O., Stará J., Tenčlová M., Gas exhalation and its calculations — Part I, *Aplikace matematiky* 26,1 (1981), 30–44.
- John O., Nečas J., Stará J., On the regularity for the 2nd order elliptic systems, *Differential equations and their applications, Proceedings of Equadiff 5, Bratislava, August 1981, Teubner- Texte* 47 (1982), 165–168.
- Giaquinta M., John O., Nečas J., Stará J., On the regularity up to the boundary for second order nonlinear elliptic systems, *Pacific J. of Math.* 99,1 (1982), 1–17.
- John O., Nečas J., Stará J., O reguljarnosti vplot' do granicy rešenij elliptičeskich nelinejnyh sistem 2ogo porjadka, *Primenenie metodov teorij funkcij i funkcionalnogo analiza k zadačam matěmatičeskoj fiziki, sbornik dokladov VII. Sovětsko-Čechoslovackogo seminara, Jerevan 1982, Izdatělstvo Jerevanskogo universitěta* (1982), 254–259.
- John O., Stará J., On the regularity of the weak solutions of Cauchy problem for nonlinear parabolic systems via Liouville property, *Comment. Math. Univ. Carolinae* 25,3 (1984), 445–457.

- John O., Stará J., Some regularity results for quasilinear parabolic systems; Equadiff 6, Proceedings of the international Conference on Differential Equations and their Applications, Brno, Czechoslovakia, August 1985, Lecture Notes in Mathematics 1192 (1985), Springer-Verlag, 247–250.
- John O., Malý J., Stará J., Counterexample to the regularity of weak solution of the quasilinear parabolic system, Comment. Math. Univ. Carolinae 27,1 (1986), 123–136.
- Daněček J., John O., Stará J., Liouville type condition and the interior regularity of quasilinear parabolic system (the case of BMO solutions), Comment. Math. Univ. Carolinae 28,1 (1987), 103–109.
- John O., Malý J., Stará J., A note on the regularity of autonomous quasilinear elliptic and parabolic systems, Commun. in Part. Diff. Eq. 13,7 (1988), 895–903.
- John O., Malý J., Stará J., Nowhere continuous solutions to elliptic systems, Comment. Math. Univ. Carolinae 30,1 (1989), 33–43.
- Kawohl B., Stará J., Wittum G., Analysis and numerical studies of a shape design problem, Preprint n. 560, Universität Heidelberg, Sonderforschungsbereich 123 "Stochastische Mathematische Modelle" (1990). Typeset by AMS-TEX
- Kawohl B., Stará J., Wittum G., Analysis and numerical studies of a shape design problem, Arch. Rat. Mech. Anal. 40(114) (1991), 349–363.
- Stará J., Tarba L., On the behaviour of solutions to the nonlinear elliptic Neumann problem in unbounded domains, Comment. Math. Univ. Carolinae 32,4 (1991), 723–729.
- John O., Stará J., Some (new) counterexamples of parabolic systems, Comment. Math. Univ. Carolinae 36,3 116,3 (1995), 503–510.
- Kaplický P., Málek J., Stará J., $C^{1,\alpha}$ solutions to a class of nonlinear fluids in two dimensions - stationary, periodic problem, Preprint n.529, Universität Bonn (1997).
- Kaplický P., Málek J., Stará J., Full regularity of weak solutions to a class of nonlinear fluids in two dimensions/stationary, periodic problem, Comment. Math. Univ. Carolinae 38,4 (1997), 681–695.
- Stará J., John O., On the regularity of weak solutions to parabolic systems, Communications in partial differential equations 23,7-8 (1998), 1159–1170.
- John O., Stará J., On the existence of time derivative of weak solutions to parabolic systems, Navier-Stokes equations: theory and numerical methods, ed. R. Salvi, Pitman research Notes in Mathematics Series n. 388, Addison, Wesley, Longman Ltd., Harlow, Essex, UK, 1999, pp. 193–200.

- Kaplický P., Málek J., Stará J., $C^{1,\alpha}$ - solutions to a class of nonlinear fluids in two dimensions - stationary Dirichlet problem, *Kraevye zadachi matematicheskoi fiziki i smezhnye voprosy teorii funktsii* 30, *Zapiski nauchnykh seminarov POMI* t. 259 (1999), 89–121.
- Kaplický P., Málek J., Stará J., On global existence of smooth two-dimensional steady flows for a class of non-Newtonian fluids under various boundary conditions, *Applied Nonlinear Analysis*, eds. A. Sequeira, H. Beirão da Veiga, J. H. Wideman, Kluwer Academic/Plenum Publishers, New York, Boston, Dordrecht, London, Moscow, 1999, pp. 213–230.
- Stará J., John O., On some regularity and nonregularity results for solutions to parabolic systems, *Le Matematiche*, Vol. LV 2000, Supplemento n.2 (2000), 145-163.
- Kaplický P., Málek J., Stará J., On existence of smooth unsteady two-dimensional flows for a class of non-Newtonian fluids in space-periodic setting, *Jubilee kateder matematiky TUL* 2000, 2001.
- Stará J., John O., Smoothness and discontinuities of weak solutions to parabolic systems, *Proceedings of RIMS Symposium on Variational Problems and Related Topics*, RIMS Kyoto, 2001, pp. 194-199.
- Kaplický P., Málek J., Stará J., Global-in-time Hölder continuity of the velocity gradients for fluids with shear dependent viscosities, *Nonlinear differ. equ. appl.* 9 (2002) (2002), 175-195.
- Daněček J., John O., Stará J., Interior $C^{1,1}$ regularity for weak solutions to nonlinear second order elliptic systems, *Math. Nachrichten* 276(2004), pp.47-56.
- Leonardi S., Kottas J., Stará J., Hölder regularity of the solutions of some classes of elliptic systems in convex nonsmooth domains., *Nonlinear Anal.* 60, no.5, (2005), 925-944.
- Daněček J., John O., Stará J., Interior $C^{1,1}$ regularity for weak solutions to nonlinear second order parabolic systems, *Comm. on PDE* 31(2006), 1085-1098. Kawohl B., Stará J., Observation on a nonlinear evolution equation, *Applicable Analysis* 85, No.1-3 (2006), 143-156.
- Nguyen Duc Huy, Stará J., On existence and regularity of solutions to a class of stationary generalized Stokes systems, *Comment. Math. Univ. Carolinae* 47, No.2 (2006), 241-264.
- Daněček J., John O., Stará J., Structural conditions guaranteeing $C^{1,1}$ regularity of weak solutions to nonlinear second order elliptic systems, *Nonlinear Analysis TMA* 60 (2007), 288-300.

- Cirmi G.R.,Leonardi S., Stará J., Regularity results for the gradient of solutions of a class of linear elliptic systems with $L^{1,\lambda}$ data, *Nonlinear Analysis TMA* 68 (2008),3609-3624.
- Daněček J., John O., Stará J., On the Hölder continuity of gradient of solutions to a class of elliptic systems, *Functiones et Approximatio* 40.2 (2009), 155-164.
- Daněček J., John O., Stará J.,Remarks on C^1 regularity for weak solutions to elliptic systems with BMO gradients, *Zeitschrift für Analysis und ihre Anwendungen* 28 (2009), 57-65.
- Jarušek J., Outrata J.,Stará J.,On optimality conditions in control of elliptic variational inequalities, *Set-Valued Anal.*(2009),23-42.
- A.A.Arkipova, J. Stará, A priori estimates for quasilinear parabolic systems with quadratic nonlinearities in gradient, *Comment.Math.Univ.Carolin.* 51.4 (2010),639-652.
- Leonardi S., Stará J., Regularity resultsfor the gradient of solutions of linear elliptic systems with VMO-coefficients and $L^{1,\lambda}$ data, *Forum Math.* (2010), 913-940.
- Daněček J., John O., Stará J., Morrey space regularity fpr weak solutions of Stokes system with VMO coefficients, *Annali di Matematica* (2011),681-701.
- Leonardi S., Stará J., Regularity up to the boundary for the gradient of solutions to linear elliptic systems with VMO coefficients and $L^{1,\lambda}$ data, *Complex Variables and Elliptic Equations* (2011),1-14.
- Leonardi S., Stará J., Regularity results for solutions of a class of parabolic systems with measure data, *Nonlinear Analysis TMA* 75(2012),2069-2089.
- Eck Chr.,Jarušek J.,Stará J.,Normal compliance model of finite interpenetration, *Arch. Rational Mech. Anal.* (2013), 25-57.
- Arkhipova A.A., Stará J.,John O.,Partial regularity for solutions of quasilinear parabolic systems with non smooth in time principal matrix, *Nonlinear Analysis TMA* (95) (2014) 421-435.
- Leonardi S., Stará J., Higher differentiability for solutions of a class of parabolic systems with $L^{1,\theta}$ data, *Quart. J. Math.*66 (2015), 659-676.
- Arina A.Arkipova, Jana Stará, Boundary partial regularity for solutions of quasilinear parabolic systems with non smooth in time principal matrix, *Nonlinear Analysis* (120) (2015),236-261.

- Alois Kufner, Jana Stará, Imbedding Theorems and Domains, Journal of Orissa Mathematical Society, Vol 34, Issue 01, (2015), 51-61.

Charles University textbooks

- Stará J., Problems in mathematical analysis IV. Functional analysis, (skriptum - in Czech) (1975), SPN, Praha.
- Aksamit P., Čerych J., John O., Stará J., Příklady z matematické analýzy V, (skriptum - in Czech) (1983), SPN, Praha.
- John O., Stará J., Functional analysis. Nonlinear problems, (skriptum - in Czech) (1986), SPN, Praha.

High school textbooks

- Doktor P., Frolíková J., Fučík S., Odvárko O., Stará J., Pedagogická příručka k učebnici pro učňovské obory s maturitou: Matematika IV (1978), SPN, Praha.
- Odvárko O., Doktor P., Frolíková J., Fučík S., Řepová J., Stará J., Matematika III, IV, Pokusný učební text pro čtyřleté obory s maturitou (1979), SPN, Praha.
- Doktor P., Frolíková J., Fučík S., Odvárko O., Řepová J., Stará J., Matematika IV. Učebnice pro učňovské obory s maturitou (1980), SPN, Bratislava.
- Frolíková J., Odvárko O., Stará J. a kol., Metodická příručka k učebnici Matematika IV pro čtyřleté učební obory s maturitou (1980), SPN, Praha.
- Milota J., Stará J., Diferenciální rovnice pro 4. ročník gymnázií se zaměřením na matematiku (1988), SPN, Praha, 176.