SCHRIFTENVERZEICHNIS

I. BEREITS ERSCHIENENE BZW. ZUR PUBLIKATION ANGENOMMENE ARBEITEN

[1] The Green matrix for strongly elliptic systems of second order with continuous coefficients. Z. Anal. Anw. 5 (6), 507–531 (1986).

[2] The Green matrix for elliptic systems which satisfy the Legendre Hadamard condition. Manus. Math. 46, 97–115 (1984).

[3] Eine Bemerkung zur Hebbarkeit gewisser isolierter Singularitäten bei nicht–linearen elliptischen Systemen. Arch. Math. 44, 266–269 (1985).

[4] Ein Regularitätssatz für ein lineares System von Variationsungleichungen mit einer Halbraumnebenbedingung. Z. Anal. Anw. 5 (1), 47–57 (1986).

[5] Regularity theorems for nonlinear systems of partial differential equations under natural ellipticity conditions. Analysis 7, 83–93 (1987).

[6] Variational inequalities for vector valued functions with nonconvex obstacles. Analysis 5, 223–238 (1985).

[7] (mit F. Duzaar) Variational problems with nonconvex obstacles and an integral constraint for vector valued functions. Math. Z. 191, 585–591 (1986).

[8] Some remarks on the boundary regularity for minima of variational problems with obstacles. Manus. Math. 54, 107–119 (1985).

[9] (mit F. Duzaar) Optimal regularity theorems for variational problems with obstacles. Manus. Math. 56, 209–234 (1986).

[10] An elementary partial regularity proof for vector valued obstacle problems. Math. Ann. 279, 217–226 (1987).

[11] A note on removable singularities for minima of certain vector valued obstacle problems. Arch. Math. 48, 521–525 (1987).

[12] A regularity theorem for energy minimizing maps of Riemannian manifolds. Comm. P.D.E. 12 (11), 1309–1321 (1987).

[13] Liouville theorems for p–harmonic systems. Boll. U.M.I. (7) 1–A, 429–435 (1987).

[14] (mit N. Fusco) Partial regularity results for vector valued functions which minimize certain functionals having nonquadratic growth under smooth side conditions. J. Reine Angew. Math. 390, 67–78 (1988).

[15] Everywhere regularity theorems for mappings which minimize p–energy. Comm. M.U.C. 28, 4, 673–677 (1987).

[16] A Liouville theorem for mappings which minimize p–energy. Boll. U.M.I. (7) 2–A, 409–415 (1988).

[17] Höhere Integrierbarkeit und Regularität für eine Klasse freier Randwertprobleme. Z. Anal. Anw. 7 (3), 215–222 (1988).

[18] (mit M. Wiegner) The regularity of minima of variational problems with graph obstacles. Arch. Math., 75–81 (1989).

[19] Some regularity theorems for mappings which are stationary points of the p–energy functional. Analysis 9, 127–143 (1989).

[20] p–harmonic obstacle problems. Part I: Partial regularity theory. Annali Mat. Pura Applicata 156, 127–158 (1990).

[21] p–harmonic obstacle problems. Part II: Extensions of maps and applications. Manus. Math. 63, 381–419 (1989).

[22] p–harmonic obstacle problems. Part III: Boundary regularity. Annali Mat. Pura Applicata 156, 159–180 (1990).

[23] The smoothness of the free boundary for a class of vector valued problems. Comm. P.D.E. 14 (8,9), 1027–1041 (1989).

[24] (mit F. Duzaar) On removable singularities of p–harmonic maps. Analyse non linéaire, Vol. 7, No. 5, 385–405 (1990).

[25] On minimizers with prescribed divergence. Comm. M.U.C. 30, 3, 497–503 (1989).

[26] Hölder continuity of the gradient for degenerate variational inequalities. Nonlinear Analysis, Vol. 15, No. 1, 85–100 (1990).

[27] (mit F. Duzaar) Existence and regularity of functions which minimize certain energies in homotopy classes of mappings. Asymptotic Analysis 5, 129–144 (1991).

[28] (mit F. Duzaar) Einige Bemerkungen über die Regularität von stationären Punkten gewisser geometrischer Variationsintegrale. Math. Nachrichten 152, 39–47 (1991).

[29] (mit F. Duzaar) Existenz und Regularität von Hyperflächen mit vorgeschriebener mittlerer Krümmung. Analysis 10, 193–230 (1990).

[30] (mit F. Duzaar) On the existence of integral currents with prescribed mean curvature. Manus. Math. 67, 41–67 (1990).

[31] (mit F. Duzaar) On integral currents with constant mean curvature. Rend. Sem. Mat. Univ. Padova, Vol. 85, 79–103 (1991).

[32] (mit F. Duzaar) Einige Bemerkungen über die Existenz orientierter Mannigfaltigkeiten mit vorgeschriebener mittlerer Krümmungsform. Z.Anal.Anw. 10(4), 525–534 (1991).

[33] Hypersurfaces of prescribed mean curvature enclosing a given body. Manus. Math. 72, 131–140 (1991).

[34] (mit F. Duzaar) A general existence theorem for integral currents with prescribed mean curvature form. Boll. U.M.I. (7) 6–B, 901–912 (1991).

[35] Smoothness for systems of degenerate variational inequalities with natural growth. Comm. M.U.C. Vol. 33, No. 1, 33–41 (1992).

[36] Existence via partial regularity for degenerate systems of variational inequalities with natural growth. Comm. M.U.C. Vol. 33, No. 1, 427–435 (1992).

[37] Regularity for a class of variational integrals motivated by nonlinear elasticity. Asymptotic Analysis 9, 23–38 (1994).

[38] p–harmonic obstacle problems. Part IV: Unbounded side conditions. Analysis 13, 69–76 (1993).

[39] The blow–up of p–harmonic maps. Manus. Math. 81, 89–94 (1993).

[40] On stationary incompressible Norton fluids and some extensions of Korn's inequality. Z. Anal. Anw. 13 (1), 191–197 (1994).

[41] (mit G. Seregin) Partial regularity of the deformation gradient for some model problems in nonlinear twodimensional elasticity. Algebra i Analiz Vol. 6, 128–153 (1994), St.–Petersburg Math.J. 6, 1229–1248 (1995).

[42] On the existence of weak solutions for degenerate systems of variational inequalities with critical growth. Comm. M.U.C. 35, 3, 445–449 (1994).

[43] (mit H.D. Alber) Workshop on the mathematical theory of nonlinear and inelastic material behaviour. Bonner Math. Schriften 239 (1993).

[44] (mit F. Duzaar) Existence of area minimizing tangent cones of integral currents with prescribed mean curvature. Acta Mathematica Scientia 15 (1), 95–102 (1995).

[45] (mit J. Reuling) Partial regularity for certain classes of polyconvex functionals related to nonlinear elasticity. Manus. Math. 87, 13–26 (1995).

[46] (mit J. Reuling) Nonlinear elliptic systems involving measure data. Rendiconti di Matematica, Serie VII, Vol. 15, 311–319 (1995).

[47] Lipschitz regularity for certain problems from relaxation. Asymptotic Analysis 12, 145–151 (1996).

[48] Existence of solutions of nonlinear systems of parabolic variational inequalities. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 221, 243–252 (1995).

[49] (mit J. F. Grotowski und J. Reuling) On variational models for quasi–static Bingham fluids. Math. Meth. Appl. Sciences 19, 991–1015 (1996).

[50] (mit G. Seregin) Hölder continuity for weak extremals of some two– dimensional variational problems related to nonlinear elasticity. Adv. Math. Sci. Appl. 7 (1), 411–423 (1997).

[51] A remark on variational integrals with nonstandard growth. Boll. U.M.I. (7) 11-B, 383–392 (1997).

[52] Differentiability properties of minima of nonsmooth variational integrals. Ricerche di Matematica 46, Vol. 1, 23–29 (1997).

[53] On quasi–static non–Newtonian fluids with power–law. Math. Meth. Appl. Sciences 19, 1225–1232 (1996).

[54] On a class of variational problems related to plasticity with polynomial hardening. Applicable Analysis, Vol. 60, 269–275 (1996).

[55] (mit G. Seregin) Some remarks on non–Newtonian fluids including nonconvex perturbations of the Bingham and Powell–Eyring model for viscoplastic fluids. Math. Models and Methods in Appl. Sciences Vol.7, No.3, 405–433 (1997).

[56] (mit G. Seregin) Regularity results for the quasi–static Bingham variational inequality in dimensions two and three. Math. Z. 227, 525–541 (1998).

[57] (mit G. Li) Global gradient bounds for relaxed variational problems. Manus. Math. 92, 287–302 (1997).

[58] (mit J. Reuling) A modification of the blow–up technique for variational integrals with subquadratic growth. J. Math. Anal. Appl. 210, 484–498 (1997).

[59] Variational models for quasi–static non–Newtonian fluids. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 233, 55–62 (1996).

[60] (mit G. Seregin) A regularity theory for variational integrals with $L \ln L$–growth. Calculus of Variations 6, Vol. 2, 171–187 (1998).

[61] (mit G. Li, O. Martio) Second order obstacle problems for vectorial functions and integrands with subquadratic growth. Ann. Acad. Sci. Fenn. Math. Vol.23, 549–558 (1998).

[62] (mit V. Osmolovski) Variational integrals on Orlicz–Sobolev spaces. Z. Anal. Anw. Vol. 17, No.2, 393–415 (1998).

[63] (mit G. Li) Variational inequalities for energy functionals with nonstandard growth conditions. Abstract Appl. Anal. Vol. 3, Nos. 1-2, 41–64 (1998).

[64] (mit G. Seregin) Variational methods for fluids of Prandtl–Eyring type and plastic materials with logarithmic hardening. Math. Meth. Appl. Sciences 22, 317–351 (1999).

[65] (mit M. Bildhauer) Regularity for dual solutions and for weak cluster points of minimizing sequences of variational problems with linear growth. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) Vol. 259, 30, 46–66 (1999).

[66] (mit G. Li) L^∞-bounds for elliptic equations on Orlicz-Sobolev spaces. Arch. Math. 72, 293–297 (1999).

[67] (mit M. Bildhauer) Obstacle Problems with Linear Growth: Hölder Regularity for the Dual Solution. Math. Nachr. 232, 5–27 (2001).

[68] (mit G. Seregin) A twodimensional variational model for the equilibrium configuration of an incompressibly elastic body with a three–well elastic potential. J. Conv. Anal. 7, 209–241 (2000).

[69] (mit M. Bildhauer und G. Seregin) Local regularity of solutions of variational problems for the equilibrium configuration of an incompressible, multiphase elastic body. Nonlinear Diff. Equ. Appl. 8, 53–81 (2001)

[70] (mit G. Mingione) Full $C^{1,\alpha}$–regularity for free and constrained local minimizers of elliptic variational integrals with nearly linear growth. Manus. Math. 102, 227–250 (2000).

[71] (mit M. Bildhauer) Higher order variational inequalities with non-standard growth conditions in dimension two: plates with obstacles. Ann. Acad. Sci. Fenn. Math. 26, 509–518 (2001).

[72] (mit M. Bildhauer) Partial regularity for variational integrals with (s, μ, q)-growth. Calc. Variations 13, 537-560 (2001).

[73] (mit M. Bildhauer und V. Osmolovskii) The effect of a surface energy term on the distribution of phases in an elastic medium with a two–well elastic potential. Math. Meth. Appl. Sciences 25, 149-178 (2002).

[74] (mit M. Bildhauer und V. Osmolovskii) The effect of a penalty term involving higher order derivatives on the distribution of phases in an elastic medium with a two–well elastic potential. Math. Meth. Appl. Sciences 25, 289-308 (2002).

[75] (mit M. Bildhauer und G. Mingione) Apriori gradient bounds and local $C^{1,\alpha}$-estimates for (double) obstacle problems under nonstandard growth conditions. Z. Anal. Anw. 20, 959-985 (2001).

[76] (mit M. Bildhauer) Twodimensional anisotropic variational problems. Calc. Variations. 16, 177-186 (2003).

[77] (mit M. Bildhauer) Relaxation of convex variational problems with linear growth defined on classes of vector-valued functions. Algebra i Analiz 14, 26-45 (2002).

[78] (mit M. Bildhauer) Elliptic variational problems with nonstandard growth. Inter. Math. Ser., Vol.1, Nonlinear problems in mathematical physics and related topics I, in honor of Prof. O.A. Ladyzhenskaya. By Tamara Rozhkovskaya, Novosibirsk, Russia, March 2002 (in Russian), 49-62. By Kluwer/Plenum Publishers, June 2002 (in English), 53-66.

[79] (mit M. Bildhauer) Partial regularity for a class of anisotropic variational integrals with convex hull property. Asymptotic Analysis 32, 293-315 (2002).

[80] (mit M. Bildhauer) Convex variational integrals with linear growth. In Geometric analysis and nonlinear partial differential equations. By S. Hildebrandt and H. Karcher, Springer, Berlin-Heidelberg-New York, 327-344 (2003).

[81] (mit M. Bildhauer) Interior regularity for free and constrained local minimizers of variational integrals under general growth and ellipticity conditions. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 288, 79-99 (2002).

[82] (mit M. Bildhauer) On a class of variational integrals with linear growth satisfying the condition of μ—ellipticity. Rendiconti di Matematica e delle sue applicazioni 22, 249-274 (2002).

[83] (mit M. Bildhauer) Variants of the Stokes problem: the case of anisotropic potentials. J. Math.Fluid Mech. 5, 364-402 (2003).

[84] (mit A. Elfanni) The behaviour of microstructures with small shears of the austenite-martensite interface in martensitic phase transformations. ZAMP 54, 937-953 (2003).

[85] (mit A. Elfanni) A link between the shape of the austenite-martensite interface and the behaviour of the surface energy. Proc. Royal Soc. Edinburgh. 134A, 1099-1113 (2004).

[86] (mit D. Apushkinskaya, M. Bildhauer) Steady states of anisotropic generalized Newtonian fluids. J. Math. Fluid Mech., 7(2), 261-297 (2005).

[87] (mit M. Bildhauer) A regularity result for stationary electrorheological fluids in two dimensions. Math. Meth. Appl. Sciences 27(13), 1607-1617 (2004).

[88] (mit M. Bildhauer, X. Zhong) A lemma on the higher integrability of functions with applications to the regularity theory of two dimensional generalized Newtonian fluids. Manus. Math., 116(2), 135-156 (2005).

[89] (mit M. Bildhauer) Regularization of convex variational problems with applications to generalized Newtonian fluids. Arch. Math., 84(2), 155-170 (2005).

[90] (mit M. Bildhauer) $C^{1,\alpha}$-solutions to non-autonomous anisotropic variational problems. Calc. Variations 24(3), 309–340 (2005).

[91] (mit M. Bildhauer, X. Zhong) On strong solutions of the differential equations modelling the steady flow of certain incompressible generalized Newtonian fluids. Algebra i Analiz, 1-23 (2006).

[92] (mit M. Bildhauer) Higher order variational problems on two-dimensional domains. Ann. Acad. Sci. Fenn. Math. 31, 349–362 (2006).

[93] (mit M. Bildhauer, X. Zhong) Variational integrals with a wide range of anisotropy. Algebra i Analiz 18, 46–71 (2006).

[94] (mit G. Seregin) Existence of global solutions for a parabolic system related to the nonlinear Stokes problem. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 348, 254–271 (2007).

[95] (mit G. Seregin) A global nonlinear evolution problem for generalized Newtonian fluids: local initial regularity of the strong solution. Comp. and Math. with Appl. 53, 509–520 (2007).

[96] (mit S. Repin) A posteriori error estimates of functional type for variational problems related to generalized Newtonian fluids. Math. Meth. Appl. Sciences 29, 2225–2244 (2007).

[97] (mit M. Bildhauer, S. Repin) A posteriori error estimates for stationary, slow flows of power–law fluids. J. Non–Newtonian Fluid Mech. 142, 112–122 (2007).

[98] (mit D. Apushkinskaya) Partial regularity for higher order variational problems under anisotropic growth conditions. Ann. Acad. Sci. Fenn. Math. 32, 199–214 (2007).

[99] (mit M. Bildhauer) A short remark on energy functionals related to nonlinear Hencky materials. Appl. Math. E–Notes 7, 77–83 (2007).

[100] (mit M. Bildhauer) Smoothness of weak solutions of the Ramberg/Osgood equations on plane domains. ZAMM 87(1), 70–76 (2007).

[101] (mit M. Bildhauer) Continuity properties of the stress tensor in the 3–dimensional Ramberg/Osgood model. J. Applied Analysis 13(2), 209–233 (2007).

[102] (mit M. Bildhauer) On the regularity of local minimizers of decomposable variational integrals on domains in $\mathbb{R}^2$. Comm. Math. Univ. Carolin. 48(2), 321–341 (2007).

[103] (mit M. Bildhauer, S. Repin) A functional type a posteriori error analysis for the Ramberg-Osgood model. ZAMM 87(11, 12), 860–876 (2007).

[104] (mit M. Bildhauer, S. Repin) Duality based a posteriori error estimates for higher order variational inequalities with power growth functionals. Ann. Acad. Sci. Fenn. Math. 33, 475–490 (2008).

[105] (mit M. Bildhauer) Higher integrability of the gradient for vectorial minimizers of decomposable variational integrals. Manus. Math. 123, 269–283 (2007).

[106] (mit M. Bildhauer, X. Zhong) A regularity theory for scalar local minimizers of splitting–type variational integrals. Ann. SNS Pisa VI(5), 385–404 (2007).

[107] (mit M. Bildhauer) Partial regularity for local minimizers of splitting-type variational integrals. Asymptotic Analysis 55, 33–47 (2007).

[108] (mit M. Bildhauer) Error estimates for obstacle problems of higher order. Zap. Nauchn. sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 348, 5–18 (2007).

[109] (mit M. Bildhauer) A remark on the regularity of vector–valued mappings depending on two variables which minimize splitting–type variational integrals. Acta Mat Sci. 30(3), 963–967 (2010).

[110] (mit M. Bildhauer) Variational integrals of splitting type: higher integrability under general growth conditions. Annali Mat. Pura Appl. 188, 467–496 (2009).

[111] A note on non-uniformly elliptic Stokes–type systems in two variables. J. Math. Fluid Mech. 12(2), 266–279 (2010).

[112] (mit M. Bildhauer, S. Repin) The elastic–plastic torsion problem: a posteriori error estimates for approximate solutions. Numerical Functional Anal. and Optimization 30(7), 653–664 (2009).

[113] (mit D. Apuchkinskaya, M. Bildhauer) Interior gradient bounds for local minimizers of variational integrals under nonstandard growth conditions. Problems in Math. Anal. 43, 35–50 (2009); J. Math. Sciences 164(3), 345–363 (2010).

[114] (mit M. Bildhauer) A geometric maximum principle for variational problems in spaces of vector valued functions of bounded variation.Zap. Nauchn. sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 385, 5–17 (2010).

[115] (mit D. Apuchkinskaya, M. Bildhauer) On local generalized minimizers and the local stress tensor for variational problems with linear growth. Problems in Math. Anal. 44, 39–54 (2010); J. Math. Sciences 165(1), 42–59 (2010).

[116] Minimization of energies related to the plate problem. Math. Meth. Appl. Sci. 32(7), 773–782 (2009).

[117] Regularity results for local minimizers of energies with general densities having superquadratic growth. St. Petersburg Math. J. 21(5), (2009).

[118] Local Lipschitz regularity of vector valued local minimizers of variational integrals with densities depending on the modulus of the gradient. Math. Nachrichten 284(2–3), 266–272 (2011).

[119] (mit M. Bildhauer) Differentiability and higher integrability results for local minimizers of splitting type variational integrals in 2D with applications to nonlinear Hencky materials. Calc. Variations 37(1–2), 167–186 (2010).

[120] (mit M. Bildhauer) A 2D-variant of theorem of Uraltseva and Urdaletova for higher order variational problems. AMS Transl. 229(2), 39–49 (2010).

[121] (mit S. Repin) Estimates of the deviations from the exact solutions for variational inequalities describing the stationary flow of certain viscous incompressible fluids. Math. Meth. Appl. Sci. 33(9), 1136–1147 (2010).

[122] A remark on the global Lipschitz regularity of solutions to inner obstacle problems involving degenerate functionals of p–growth. IMS Bulletin 63, 5–9 (2009).

[123] (mit O. Schirra) An application of a new coercive inequality to variational problems studied in general relativity and in cosserat elasticity giving the smoothness of minimizers. Archiv d. Math. 93,587–596 (2009).

[124] Generalizations of Korn's inequality based on gradient estimates in Orlicz spaces and applications to variational problems in 2D involving the trace free part of the symmetric gradient. J. Math. Sciences 167(3), 418–434 (2010).

[125] An estimate for the distance of a complex valued Sobolev function defined on the unit disc to the class of holomorphic functions. J. Applied Analysis 17(1), (2011)

[126] Korn inequalities in Orlicz spaces. IMS Bulletin 65, 5–9 (2010).

[127] (mit D. Breit) The nonlinear Stokes problem with general potentials having superquadratic growth. J. Math. Fluid Mech. 13(3), 371–385 (2011).

[128] (mit S. Repin) Some Poincaré–type inequalities for functions of bounded deformation involving the deviatoric part of the symmetric gradient. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 385, 224–234 (2010).

[129] Stationary flows of shear thickening fluids in 2D. J. Math. Fluid Mech. 14(1), 43–54 (2012).

[130] Twodimensional variational problems with a wide range of anisotropy. J. Math. Sciences 175(3), 375–389 (2011).

[131] (mit S. Repin) A posteriori error estimates for the approximations of the stresses in the Hencky plasticity problem. Numerical Functional Anal. Optimization 32(6), 610–640 (2011).

[132] (mit M. Bildhauer) Compact embeddings of the space of functions with bounded logarithmic deformation. J. Math. Sciences 172(1), 165–183 (2011).

[133] Liouville theorems for stationary flows of shear thickening fluids in the plane. J. Math. Fluid Mech.14(3), 421–444 (2012).

[134] Computable upper bounds for the constants in Poincaré-type inequalities for fields of bounded deformation. Math. Meth. Appl. Sciences 34(15), 1920–1932 (2011).

[135] (mit G. Zhang) Liouville theorems for entire local minimizers of energies defined on the class $L \log L$ and for entire solutions of the stationary Prandtl-Eyring fluid model. Calc. Var. Partial Differential Equations 44(1–2), 271–295 (2012) .

[136] (mit M. Bildhauer) A variational approach to the denoising of images based on different variants of the TV-regularization. Appl. Math. Optim. 66(3), 331-361 (2012).

[137] (mit G. Zhang) On entire solutions of the equations for the displacement fields in the deformation theory of plasticity with logarithmic hardening. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 397, 157–171 (2011).

[138] (mit D. Breit, L. Diening) Solenoidal Lipschitz truncation and applications in fluid mechanics. J. Differential Equations 253(6), 1910–1942 (2012).

[139] (mit X. Zhong) A note on a Liouville-type result of Gilbarg and Weinberger for the stationary Navier-Stokes equations in $2D$. J. Math. Sciences 178(6), 695–703 (2011).

[140] (mit M. Bildhauer) On the exterior problem in $2D$ for statonary flows of fluids with shear dependent viscosity. Comment. Math. Univ. Carolin. 53(2), 221–236 (2012).

[141] (mit M. Bildhauer) Lipschitz regularity for constrained local minimizers of convex variational integrals with a wide range of anisotropy. Manus. Math. 141(1-2), 63–83 (2013).

[142] Variations on Liouville's theorem in the setting of stationary flows of generalized Newtonian fluids in the plane. AMS Transl. 232(2), 79–98 (2014).

[143] (mit M. Bildhauer, G. Zhang) Liouville-type theorems for steady flows of degenerate power law fluids in the plane. J. Math. Fluid Mech. 15, 583-616 (2013).

[144] (mit M. Bildhauer) On some perturbations of the total variation image inpainting method. Part I: regularity theory. J. Math. Sciences 202(2), 154–169 (2014).

[145] (mit M. Bildhauer) On some perturbations of the total variation image inpainting method. Part II: relaxation and dual variational formulation. J. Math. Sciences 205(2), 121–140 (2015).

[146] (mit M. Bildhauer) On some perturbations of the total variation image inpainting method. Part III: minimization among sets with finite perimeter. J. Math. Sciences 207(2), 142–146 (2015).

[147] (mit M. Bildhauer) Image inpainting with energies of linear growth - a collection of proposals. J. Math. Sciences 196(4), 490–497 (2014).

[148] (mit M. Bildhauer, C. Tietz) $C^{1,\alpha}$-interior regularity for minimizers of a class of variational problems with linear growth related to image inpainting. Algebra i Analiz 27(3), 51–65 (2015).

[149] (mit M. Bildhauer, J. Weickert) Denoising and inpainting of images using TV–type energies: computational and theoretical aspects. J. Math. Sciences 219(6), 899–910 (2016).

[150] (mit M. Bildhauer, J. Weickert) An alternative approach towards the higher order denoising of images. Analytical aspects. Zap. Nauchn. Sem. St.-Petersburg Odtel. Math. Inst. Steklov (POMI) 444, 46–88 (2016).

[151] (mit C. Tietz) Existence of generalized minimizers and of dual solutions for a class of variational problems with linear growth related to image recovery. J. Math. Sciences 210(4), 458–475 (2015).

[152] (mit J. Müller) A higher order TV–type variational problem related to the denoising and inpainting of images. Nonlinear Analysis TMA 154, 122–147 (2017).

[153] (mit J. Müller, C. Tietz) Signal recovery via TV–type energies. to appear in Algebra i Analiz.

[154] (mit M. Bildhauer) Some remarks on the (non–) attainment of the boundary data for variational problems in the space BV. to appear in J. Convex Analysis.

[155] (mit J. Müller, C. Tietz, J. Weickert) Convex regularization of multi-channel images based on variants of the TV-model. to appear in Complex Variables and Elliptic Equations.

[156] (mit M. Bildhauer, J. Müller, C. Tietz) On the solvability in Sobolev spaces and related regularity results for a variant of the TV-image recovery model: the vector-valued case. J. Elliptic and Parabolic Equations 2 (1–2), 341–355 (2016).

[157] (mit J. Müller) A remark on the denoising of greyscale images using energy densities with varying growth rates. to appear in J. Math. Sciences.

II. ZUR PUBLIKATION EINGEREICHTE ARBEITEN

[158] (mit M. Bildhauer, J. Müller, X. Zhong) On the local boundedness of generalized minimizers of variational problems with linear growth.

[159] (mit M. Bildhauer, J. Müller) A reciprocity principle for constrained isoperimetric problems and existence of isoperimetric sets in convex subregions of $\mathbb{R}^2$.

[160] (J. Müller) Existence and regularity results for stationary incompressible flows with dissipative potentials of linear growth.

[161] (mit J. Weickert) Iterative TV-regularization of greyscale images.

III. MONOGRAPHIEN

1.) Topics in the Calculus of Variations. Advanced Lectures in Mathematics. Vieweg Verlag 1994.

2.) (mit G. Seregin) Variational methods for problems from plasticity and for generalized Newtonian fluids. Ann. Universitatis Saraviensis. Series Math. Vol 10, No.1, 1–283 (1999). Lecture Notes in Mathematics 1749, Springer Verlag 2000.

IV. PREPRINTS

(a) Arbeit Nr. 14: Universita Degli Studi Di Napoli, Preprint Nr. 46.

(b) Arbeiten Nr. 19, 22–31, 34, 40, 41, 44 – 47, 49 – 58, 60 – 65, 67, 70–76 sind in der Preprint–Reihe des SFB 256 der Universität Bonn erschienen

(c) Arbeiten Nr. 33, 35, 42, 43, 48 sind in der Preprint–Reihe der TH Darmstadt erschienen.

(d) Arbeiten Nr. 68, 69 sind in der Preprint–Reihe des Max–Planck–Instituts für Mathematik in den Naturwissenschaften Leipzig erschienen.

(e) Regularitätstheorie für Minimalstellen von degenerierten Variationsintegralen mit nichtlinearen Nebenbedingungen. p–harmonische Hindernisprobleme. Vorlesungsreihe SFB 256 Nr. 4.

V.

(a) Diplom–Arbeit (U–Düsseldorf, Mai 1981). Maximum Prinzipien und Eindeutigkeitsaussagen für schwache Lösungen stark nichtlinearer elliptischer Systeme.

(b) Dissertation (U–Düsseldorf, Februar 1983). Die Green Matrix für elliptische Systeme zweiter Ordnung in Divergenzform mit stetigen Koeffizienten.

(c) Habilitationsschrift (U–Düsseldorf, November 1987). p–harmonische Hindernisprobleme.