Zielona Góra, July, 1st, 2021

Prof. Dr. Andrzej Cegielski
Institute of Mathematics
University of Zielona Góra

List of publications

Refereed Journal Publications

[J41] H.-K. Xu, A. Cegielski, The Landweber operator approach to the split equality problem, *SIAM Journal on Optimization,* **31** (2021) 626–652.

[J40] A. Cegielski, A. Gibali, S. Reich, and R. Zalas, Outer approximation methods for solving variational inequalities defined over the solution set of a split convex feasibility problem, *Numerical Functional Analysis and Optimization* (2020), DOI 10.1080/01630563.2020.1737938 (published on line).

[J39] A. Cegielski, S. Reich and R. Zalas, Weak, strong and linear convergence of the CQ-method via the regularity of Landweber operators, *Optimization*, **69** (2020) 605–636.

[J38] A. Cegielski and N. Nimana, Extrapolated cyclic subgradient projection methods for the convex feasibility problems and their numerical behaviour, *Optimization*, 68 (2019) 145-161.

[J37] A. Cegielski, S. Reich and R. Zalas, Regular sequences of quasi-nonexpansive operators and their applications, *SIAM Journal on Optimization*, **28** (2018) 1508-1532.

[J36] A. Cegielski and F. Al-Musallam, Superiorization with level control, *Inverse Problems*, **33** (2017) 044009 (17pp).

[J35] A. Cegielski and F. Al-Musallam, Strong convergence of a hybrid steepest descent method for the split common fixed point problem, *Optimization*, **65** (2016) 1463-1476.

[J34] F. Al-Musallam, A. Cegielski and Ch. Grossmann, Simultaneous control of regularization, discretization and projected gradient steps for variational inequality problems, *Journal of Nonlinear and Convex Analysis,* **17** (2016) 349-364.

[J33] A. Cegielski, Landweber-type operator and its properties, *Contemporary Mathematics*, **658** (2016) 139-148.

[J32] A. Cegielski, Application of quasi-nonexpansive operators to an iterative method for variational inequality, *SIAM Journal on Optimization*, **25** (2015) 2165-2181.

[J31] A. Cegielski, General method for solving the split common fixed point problem, *Journal of Optimization Theory and Applications*, **165** (2015) 385-404.

[J30] Y. Censor and A. Cegielski, Projection methods: an annotated bibliography of books and reviews, *Optimization*, **64** (2015) 2343-2358.

[J29] A. Cegielski, Extrapolated simultaneous subgradient projection method for variational inequality over the intersection of convex subsets, *Journal of Nonlinear and Convex Analysis*, **15** (2014) 211-218.

[J28] A. Cegielski and R. Zalas, Properties of a class of approximately shrinking operators and their applications, *Fixed Point Theory,* **15** (2014) 399-426.

[J27] F. Al-Musallam, A. Cegielski and Ch. Grossmann, Contraction behavior of iteration-discretization based on gradient type projections, *Optimization*, **64** (2014) 25-39.

[J26] A. Cegielski, A. Gibali, S. Reich and R. Zalas, An algorithm for solving the variational inequality problem over the fixed point set of a quasi-nonexpansive operator in Euclidean space, *Numer. Funct. Anal. Optimiz.,* **34** (2013) 1067-1096.

[J25] A. Cegielski and Ch. Grossmann, Iteration-discretization methods for variational inequalities over fixed point sets, *Nonlinear Analysis: Theory, Methods & Applications,* **85** (2013) 31-42.

[J24] A. Cegielski and R. Zalas, Methods for variational inequality problem over the intersection of fixed point sets of quasi-nonexpansive operators, *Numer. Funct. Anal. Optimiz.,* **34** (2013) 255-283.

[J23] A. Cegielski and Y. Censor, Extrapolation and local acceleration of an iterative process for common fixed point problems, *J. Math. Anal. Appl.*, **394** (2012) 809-818.

[J22] A. Cegielski, Generalized relaxations of nonexpansive operators and convex feasibility problems, *Contemporary Mathematics,* **513** (2010) 111-123.

[J21] A. Cegielski, On the Kaczmarz method (in Polish), *Wiadomości Matematyczne,* **46** (2010) 27-36.

[J20] A. Cegielski and R. Dylewski, Variable target value relaxed alternating projection method, *Computational Optimization and Applications*, **47** (2010) 455-476.

[J19] A. Cegielski and A. Suchocka, Relaxed alternating projection methods, *SIAM Journal on Optimization* **19** (2008) 1093-1106.

[J18] A. Cegielski and A. Suchocka, Incomplete alternating projection method for large inconsistent linear systems, *Linear Algebra and Applications* **428** (2008) 1313-1324.

[J17] A. Cegielski, Projection methods for the linear split feasibility problems, *Optimization*, **57** (2008) 491-504.

[J16] A. Cegielski, Convergence of the projected surrogate constraints method for the linear split feasibility problems, *Journal of Convex Analysis*, **14** (2007) 169-183.

[J15] A. Cegielski, A generalization of the Opial's Theorem, *Control and Cybernetics*, **36** (2007) 601-610.

[J14] A. Cegielski and Ch. Grossmann, Properties of Projection and Penalty Methods for Discretized Elliptic Control Problems, *Discussiones Mathematicae. Differential Inclusions, Control and Optimization*, **27** (2007) 23-41.

[J13] A. Cegielski and R. Dylewski, Residual selection in a projection method for convex minimization problems, *Optimization*, **52** (2003) 211–220.

[J12] A. Cegielski and R. Dylewski, Selection strategies in a projection method for convex minimization problems, *Discussiones Mathematicae. Differential Inclusions, Control and Optimization*, **22** (2002) 97–123.

[J11] A. Cegielski, Obtuse cones and Gram matrices with nonnegative inverse, *Linear Algebra and Applications*, **335** (2001) 167-181.

[J10] A. Cegielski, A method of projection onto an acute cone with level control in convex minimization, *Mathematical Programming*, **85** (1999) 469-490.

[J9] A. Cegielski, Geometrically convergent subgradient projection method in matrix games, *Journal of Optimization Theory and Applications*, **85** (1995) 249-264.

[J8] A. Cegielski, The Polyak subgradient projection method in matrix games, *Discussiones Mathematicae*, **13** (1993) 155-165.

[J7] A. Cegielski, Ellipsoid projection method in matrix games, *Optimization*, **23** (1992) 117-123.

[J6] A. Cegielski, A subgradient projection method in matrix games, *Discussiones Mathematicae*, **11** (1991) 143-149.

[J5] A. Cegielski, Toeplitz type theorems for double sequences and their applications to some iterative process in zero-sum continuous games, *Optimization*, **21** (1990) 433-443.

[J4] A. Cegielski, Approximation of some zero-sum non-continuous game by a matrix game, *Commentationes Mathematicae*, **30** (1990) 261-267.

[J3] A. Cegielski, Tactical problems involving uncertain actions, *Journal of Optimization Theory and Applications*, **49** (1986) 81-105.

[J2] A. Cegielski, Game of timing with uncertain number of shots, *Mathematica Japonica*, **31** (1986) 503-532.

[J1] A. Cegielski, A mixed game of timing of type 1×1 with uncertain actions (in Polish), *Roczniki PTM, Ser. III, Matematyka Stosowana*, **16** (1980) 239-250.

Refereed Conference Publications

[C6] A. Cegielski and Y. Censor, Opial-type theorems and the common fixed point problem, in: H. H. Bauschke, R. S. Burachik, P. L. Combettes, V. Elser, D. R. Luke and H. Wolkowicz (Editors), *Fixed-Point Algorithms for Inverse Problems in Science and Engineering*, Springer Optimization and Its Applications **49**, New York, NY, USA, 2011, pp. 155-183.

[C5] A. Cegielski, Variable Target Subgradient Method of Projection onto an Acute Cone in Convex Minimization, *Proceedings of the 20th Symposium on Operations Research*, Passau (Germany), September 13-15, 1995, Springer-Verlag (1996).

[C4] A. Cegielski, Projection onto an acute cone and convex feasibility problems, in *Lecture Notes in Control and Information Sciences,* **197**, J. Henry i J.-P. Yvon (Eds.), Springer Verlag. 1994, pp. 187-194.

[C3] A. Cegielski, A convergence acceleration of the relaxation algorithm in convex minimization, in *Operations Research '92*, A. Karmann, K. Mosler, M. Schader, G. Uebe (Eds.), Proceedings of the 17. Symposium on Operations Research, Hamburg (Germany), Aug. 25-28, 1992, Physica Verlag, 1993, pp. 173-176.

[C2] A. Cegielski, A subgradient projection method in linear programming, in *Operations Research '91*, R. Gützmann, R. Hettich, R. Horst, E. Sachs (Eds.), Proceedings of the 16. Symposium on Operations Research, Trier (Germany), Sept. 9–11, 1991, Physica Verlag, 1992, pp. 71-74.

[C1] A. Cegielski, Silent duel with accuracies less than 1, in: *Lecture Notes in Economics and Mathematical Systems*, Vol. 226, Selected Topics in Operations Research and Mathematical Economics, Proceedings, Karlsruhe (Germany), 1983, Springer Verlag, 1984, pp. 245-251.

Books

[B3] A. Cegielski, *Iterative Methods for Fixed Point Problems in Hilbert Spaces*, Lecture Notes in Mathematics 2057, Springer, Heidelberg, 2012.

[B2] A. Cegielski, *Mathematical Programming. Part 1. Linear Programming* (in Polish), Oficyna Wydawnicza Uniwersytetu Zielonogórskiego, Zielona Góra, 2002.

[B1] A. Cegielski, *Relaxation Methods in Convex Optimization Problems* (in Polish), Monographs, Vol. **67**, Institute of Mathematics, Higher College of Engineering, Zielona Góra, 1993.

Technical Reports, Conference Abstracts, PhD Thesis and other Publications

[R8] A. Cegielski, Numerical behavior of the projection method onto an acute cone in convex minimization, Workshop *Stabilitaet und Sensitivitaet von Optimierungs- und Steuerungsproblemen*, Burg (Spreewald) 1999 (conference abstracts).

[R7] A. Cegielski, Projection Methods in Convex Minimization, *12th Conference on Variational Calculus, Optimal Control and Applications*, Trassenheide (Germany), September 23-27, 1996 (conference abstracts).

[R6] A. Cegielski, *On a relaxation algorithm in convex optimization problems*, Technical Report, Institute of Mathematics Higher College of Engineering, Zielona Góra (1995) 1-19.

[R5] A. Cegielski, Methods of the projection onto an acute cone in convex minimization*, 7th French-German Conference on Optimization*, Dijon, France, June 27 – July 2, 1994 (conference abstracts).

[R4] A. Cegielski, A method of projection onto an acute cone in convex feasibility problems, *16th IFIP Conference in System Modelling and Optimization*, Compiegne, France, July, 5-9, 1993 (conference abstracts, pp. 429-432).

[R3] A. Cegielski, On some subgradient and ellipsoid methods in matrix games, *XIV International Conference on Mathematical Optimization – Theory and Applications*, Eisenach, 1989 (conference abstracts, pp. 28-31).

[R2] A. Cegielski, An iterative process in continuous games, in: *Differential equations and optimal control, Proceedings of the Sixth Scientific Session of Mathematicians in Żagań* (1986) pp. 7-13.

[R1] A. Cegielski, *Games of timing with incomplete information*, PhD Thesis, (in Polish) Technical Report, Institute of Mathematics, Technical University Wrocław, Report nr 18 (1981).