

ZAHRADNÍK, P. a M. VLČEK. The World of Ripples. *IEEE Circuits and Systems Magazine*. 2019, **19**(2), 59-66. ISSN 1531-636X. DOI [10.1109/MCAS.2019.2909660](https://doi.org/10.1109/MCAS.2019.2909660)

ZAHRADNÍK, P. et al. Approximation of Equiripple Low-pass FIR Filters. In: *2018 IEEE Seventh International Conference on Communications and Electronics (ICCE)*. 2018 IEEE Seventh International Conference on Communications and Electronics, Hue, 2018-07-18/2018-07-20. Piscataway: IEEE, 2018. s. 285-290. ISBN 978-1-5386-3678-7. DOI [10.1109/CCE.2018.8465751](https://doi.org/10.1109/CCE.2018.8465751)

ZAHRADNÍK, P. et al. Robust Design of Optimal Equiripple Cascade Narrow-band FIR Filters. In: *2nd International Conference on Telecommunication and Networks*. 2017 2nd International Conference on Telecommunication and Networks, Noida (Utter Pradesh), 2017-08-10/2017-08-11. Noida (Uttar Pradesh): Amity Institute of Telecom Engineering and Management, 2017. s. 221-226. ISBN 978-1-5090-6710-7. DOI [10.1109/TEL-NET.2017.8343527](https://doi.org/10.1109/TEL-NET.2017.8343527)

KUBÁK, J., P. SOVKA a M. VLČEK. Evaluation of Computing Symmetrical Zolotarev Polynomials of the First Kind. *Radioengineering*. 2017, **26**(3), 903-913. ISSN 1210-2512. DOI [10.13164/re.2017.0903](https://doi.org/10.13164/re.2017.0903)

JANÍK, J., P. SOVKA a M. VLČEK. How we came up with ADZCT The way from DZCT to ADZCT. In: *2012 International Conference on Applied Electronics*. Plzeň, 2012-09-06/2012-09-08. Pilsen: University of West Bohemia, 2012. s. 119-122. ISSN 1803-7232. ISBN 978-80-261-0038-6.

ZAHRADNÍK, P. et al. Cascade Structure of Narrow Equiripple Bandpass FIR Filters. *IEEE Transactions on Circuits and Systems II: Express Briefs*. 2017, **64**(4), 407-411. ISSN 1549-7747. DOI [10.1109/TCSII.2016.2574243](https://doi.org/10.1109/TCSII.2016.2574243)

ZAHRADNÍK, P. et al. Improved Design of Optimal Notch FIR Filters. In: XUAN QUYNH, N. et al., eds. *IEEE ICCE 2016*. 2016 IEEE Sixth International Conference on Communications and Electronics, Ha Long, 2016-07-27/2016-07-29. Piscataway, NJ: IEEE, 2016. s. 302-305. ISBN 978-1-5090-1800-0.

ZAHRADNÍK, P. et al. Narrowest Band-pass Digital FIR Filters. In: LARSEN, B.B., G. FEY a A.A. VATANJOU, eds. *ECCTD2015 PROCEEDINGS*. 22nd European Conference on Circuit Theory and Design, Trondheim, 2015-08-24/2015-08-26. Piscataway: IEEE, 2015. ISBN 978-1-4799-9876-0.

ZAHRADNÍK, P. et al. Degree of Equiripple Narrow Bandpass FIR Filter. *IEEE Transactions on Circuits and Systems II: Express Briefs*. 2015, **62**(8), 771-775. ISSN 1549-7747. DOI [10.1109/TCSII.2015.2433333](https://doi.org/10.1109/TCSII.2015.2433333)

ZAHRADNÍK, P. et al. Improved Design of Optimal Narrow Band-Pass FIR Filters. In: MLADENOV, V., D. FOTI a D. JELONEK, eds. *Recent Advances in Circuits*. 19th International Conference on Circuits, Systems, Communications and Computers, Zakynthos, 2015-07-16/2015-07-20. Athens: World Scientific and Engineering Society Press, 2015. s. 111-114. ISSN 1790-5117. ISBN 978-1-61804-319-1.

ZAHRADNÍK, P. a M. VLČEK. Analytical design of optimal FIR comb filters. In: *IEEE INTERNATIONAL CONFERENCE ON COMMUNICATIONS*. Anchorage, 2003-05-11/2003-05-15. Anchorage: IEEE Communications Society, 2003. s. 3590-3593. ISBN 0-7803-7802-4.

BEDNÁŘ, M., J. LETTL a M. VLČEK. Stable Adaptive Signal Generation in Current Based MRAS Induction Motor Sensorless Speed Control. In: *Progress In Electromagnetics Research Symposium 2013 Taipei*. Taipei,

Taiwan, 2013-03-25. Cambridge: Electromagnetics Academy, 2013. s. 689-692. ISSN 1559-9450. ISBN 978-1-934142-24-0.

CLIMENTE-ALARCON, Vicente et al. Induction Motor Diagnosis by Advanced Notch FIR Filters and the Wigner-Ville Distribution. *IEEE Transactions on Industrial Electronics*. 2014, **66**(8), 4217-4227. ISSN 0278-0046. DOI [10.1109/TIE.2013.2286581](https://doi.org/10.1109/TIE.2013.2286581)

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Optimal FIR Filters for DTMF Applications. In: *ICN 2013: The Twelfth International Conference on Networks*. The Twelfth International Conference on Networks, Sevilla, 2013-01-27/2013-02-01. Wilmington: IARIA, 2013. s. 163-168. ISSN 2308-4413. ISBN 978-1-61208-245-5.

VLČEK, M. a P. SOVKA. Zernike Polynomials and their Spectral Representation. In: MALDENOV, V. a K. NTALIANS, eds. *Proceedings of the 2013 International Conference on Electronics, Signal Processing and Communication Systems (ESPCO 2013)*. RECENT ADVANCES in ELECTRONICS, SIGNAL PROCESSING and COMMUNICATION SYSTEMS, 2013 International Con, Venice, 2013-09-28/2013-09-30. Venice: EUROPMENT, European Society for Applied Sciences and Development, 2013. s. 21-25.

<http://www.europment.net/library/2013/venice/ESPCO.pdf>. ISBN 978-1-61804-207-1. Dostupné z: <http://www.europment.net/library/2013/>

MÁŠA, P. et al. Using ADZT for Signal Reconstruction. In: *Circuit Theory and Design (ECCTD), 2013 European Conference on*. 21st European Conference on Circuit Theory and Design, Dresden, 2013-09-08/2013-09-12. Dresden: Technische Universität, 2013. s. 1-4.

<http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6653328>. ISBN 978-3-00-043430-3. DOI [10.1109/ECCTD.2013.6662335](https://doi.org/10.1109/ECCTD.2013.6662335)

VLČEK, M. a P. ZAHRADNÍK. Approximation of almost equiripple low-pass FIR filters. In: *Circuit Theory and Design (ECCTD), 2013 European Conference on*. 21st European Conference on Circuit Theory and Design, Dresden, 2013-09-08/2013-09-12. Dresden: Technische Universität, 2013. s. 1-4.

<http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6653328>. ISBN 978-3-00-043430-3. DOI [10.1109/ECCTD.2013.6662301](https://doi.org/10.1109/ECCTD.2013.6662301)

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Narrow-Band FIR Filter Sets. In: *LASCAS 2013*. 2013 IEEE 4th Latin American Symposium on Circuits and Systems, Cusco, 2013-02-27/2013-03-01. Piscataway: IEEE, 2013. ISBN 978-1-4244-9485-9.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Closed Form Design of Nearly Equiripple Low-Pass FIR Filters. In: *LASCAS 2013*. 2013 IEEE 4th Latin American Symposium on Circuits and Systems, Cusco, 2013-02-27/2013-03-01. Piscataway: IEEE, 2013. ISBN 978-1-4244-9485-9.

ZAHRADNÍK, P. a M. VLČEK. Notch Filtering Suitable for Real Time Removal of Power Line Interference. *Radioengineering*. 2013, **22**(1), 186-193. ISSN 1210-2512.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Fast and Robust Analytical Design of Equiripple Comb FIR Filters for Communication Purposes. In: BI, J., T. GYIRES a I. POZNIAK-KOSZALKA, eds. *ICN 2008: Seventh International Conference on Networking, Proceedings*. The Seventh International Conference on Networking, Cancun, 2008-04-13/2008-04-18. Los Alamitos: IEEE Computer Society, 2008. s. 588-593. ISBN 978-1-4244-4234-8.

ZAHRADNÍK, P. et al. Two-dimensional notch FIR filters. In: *35th International Conference Telecommunications and Signal Processing*. 35th International Conference on Telecommunications and Signal Processing, Prague, 2012-07-03/2012-07-04. Brno: VUT v Brně, Fakulta elektrotechniky a komunikačních technologií, 2012. s. 621-624. ISBN 978-1-4673-1118-2. DOI [10.1109/TSP.2012.6256371](https://doi.org/10.1109/TSP.2012.6256371)

ZAHRADNÍK, P. et al. Band-Pass Filters for Direct Sampling Receivers. In: LORENZ, P., T. GYIRES a I. POZNIAK-KOSZALKA, eds. *ICN 2012 - The Eleventh International Conference on Networks*. The Eleventh International Conference on Networks, Saint Gilles, 2012-02-29/2012-03-05. Wilmington: IARIA, 2012. s. 44-49. ISBN 978-1-61208-183-0.

VLČEK, M. a P. ZAHRADNÍK. Almost Equiripple Low-Pass FIR Filters. *Circuits, Systems, and Signal Processing*. 2013, **32**(2), 743-757. ISSN 0278-081X. DOI [10.1007/s00034-012-9484-0](https://doi.org/10.1007/s00034-012-9484-0)

TUROŇ, V., P. SOVKA a M. VLČEK. Vybrané adaptivní metody pro spektrální analýzu signálů. In: ČMEJLA, R., J. RUSZ a D. ŠPULÁK, eds. *LETNÍ DOKTORANDSKÉ DNY 2012*. 2. LETNÍ DOKTORANDSKÉ DNY, Praha, 2012-05-24/2012-05-25. Praha: České vysoké učení technické v Praze, 2012. s. 20-23. ISBN 978-80-01-05050-7.

JANÍK, J., P. SOVKA a M. VLČEK. Cesta k Aproximovanéj Diskrétnej Zolotarev Kosínusovej Transformácii. In: ČMEJLA, R., J. RUSZ a D. ŠPULÁK, eds. *LETNÍ DOKTORANDSKÉ DNY 2012*. 2. LETNÍ DOKTORANDSKÉ DNY, Praha, 2012-05-24/2012-05-25. Praha: České vysoké učení technické v Praze, 2012. s. 14-19. ISBN 978-80-01-05050-7.

ZAHRADNÍK, P. a M. VLČEK. Perfect Decomposition Narrow-Band FIR Filter Banks. *IEEE Transactions on Circuits and Systems II: Express Briefs*. 2012, **59**(11), 805-809. ISSN 1549-7747. DOI [10.1109/TCSII.2012.2218453](https://doi.org/10.1109/TCSII.2012.2218453)

JANÍK, J., P. SOVKA a M. VLČEK. How we came up with ADZCT. In: *2012 International Conference on Applied Electronics*. Plzeň, 2012-09-06/2012-09-08. Pilsen: University of West Bohemia, 2012. s. 119-122. ISSN 1803-7232. ISBN 978-80-261-0038-6.

TUROŇ, V., P. SOVKA a M. VLČEK. Comparison of selected methods for spectral analysis of non-stationary signals. In: *2012 International Conference on Applied Electronics*. Plzeň, 2012-09-06/2012-09-08. Pilsen: University of West Bohemia, 2012. s. 317-321. ISSN 1803-7232. ISBN 978-80-261-0038-6.

ZAHRADNÍK, P. et al. Very Long Band-pass FIR Filters on the Eight-core DSP TMS320C6678. In: SORAGHAN, J. J. et al., eds. *EDERC2012 Proceedings*. European SP Education & Research Conference, Amsterdam, 2012-09-13/2012-09-14. Houston: Texas Instruments, 2012. s. 67-70. ISBN 978-0-9573832-0-3.

VLČEK, M. Chebyshev polynomial approximation for activation sigmoid function. *Neural Network World*. 2012, **22**(4), 387-393. ISSN 1210-0552.

ZAHRADNÍK, P. a M. VLČEK. A computer Program for Designing Notch FIR Linear Phase Digital Filters. *International Review on Computers and Software (IRECOS)*. 2012, **7**(2), 505-510. ISSN 1828-6003.

ZAHRADNÍK, P. et al. Design of Half-Band FIR Filters for Signal Compression. *International Journal on Advances in Telecommunications*. 2011, **4**(3 & 4), 240-248. ISSN 1942-2601.

ZAHRADNÍK, P. a M. VLČEK. Fast Design of Half-Band FIR Filters. In: DING, Y. et al., eds. *2011 4th International Congress on Image and Signal Processing - CISP 2011*. 2011 4th International Congress on Image and Signal Processing, Shanghai, 2011-10-15/2011-10-17. Piscataway: IEEE, 2011. s. 2285-2288. ISBN 978-1-4244-9305-0.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Fifth Type of Comb FIR Filters. In: DING, Y. et al., eds. *2011 4th International Congress on Image and Signal Processing - CISP 2011*. 2011 4th International Congress on Image and Signal Processing, Shanghai, 2011-10-15/2011-10-17. Piscataway: IEEE, 2011. s. 2289-2293. ISBN 978-1-4244-9305-0.

ZAHRADNÍK, P. et al. Advanced Education in Digital Signal Processing. In: HUANG, R., ed. *Proceedings of the IASTED International Conference on Technology for Education and Learning*. Technology for Education and Learning, Beijing, 2011-10-24/2011-10-26. Anaheim: ACTA Press, 2011. s. 85-89. ISBN 978-0-88986-890-8. DOI [10.2316/P.2011.750-017](https://doi.org/10.2316/P.2011.750-017)

TUROŇ, V. et al. Study of ADZT properties for spectral analysis. In: *Proceedings of the 11th WSEAS International Conference on Signal Processing, Computational Geometry and Artificial Vision*. The 11th WSEAS International Conference on Signal Processing, Computational Geometry and Systems Theory, Florencie, 2011-08-23/2011-08-25. Athens: WSEAS Press, 2011. s. 171-176. ISBN 978-1-61804-027-5. Dostupné z: <http://www.wseas.us/e-library/conferences/2011/Florence/GAVTASC/GAVTASC-29.pdf>

JANÍK, J. et al. A way to a new multi-spectral transform. In: *Proceedings of the 11th WSEAS International Conference on Signal Processing, Computational Geometry and Artificial Vision*. The 11th WSEAS International Conference on Signal Processing, Computational Geometry and Systems Theory, Florencie, 2011-08-23/2011-08-25. Athens: WSEAS Press, 2011. s. 177-182. ISBN 978-1-61804-027-5. Dostupné z: <http://www.wseas.us/e-library/conferences/2011/Florence/GAVTASC/GAVTASC-30.pdf>

TUROŇ, V. et al. Porovnání dvou spektrálních metod pro analýzu akustických signálů. *Akustické listy*. 2011, 17(4), 26-30. ISSN 1212-4702.

JANÍK, J., M. VLČEK a P. SOVKA. *Discrete Zolotarev Cosine Transform - Matrix Calculus*. [Výzkumná zpráva] Prague: Czech Technical University, 2011. Zpráva č. Z-1/2011.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Comb Filters for Communication Technology. In: *GlobeNet 2011*. The Tenth International Conference on Networks, St. Maarten, 2011-01-23/2011-01-28. Silicon Valley: International Academy, Research and Industry Association (IARIA), 2011. s. 363-367. ISBN 978-1-61208-002-4.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Half-band FIR Filters for Signal Compression. In: *GlobeNet 2011*. The Tenth International Conference on Networks, St. Maarten, 2011-01-23/2011-01-28. Silicon Valley: International Academy, Research and Industry Association (IARIA), 2011. s. 359-362. ISBN 978-1-61208-002-4.

TUROŇ, V. et al. Zolotarevova transformace a spektrální analýza. In: POLLÁK, P. a R. ČMEJLA, eds. *Analýza a zpracování řečových a biologických signálů - sborník prací 2010*. Semináře Katedry teorie obvodů, Praha, 2010-12-10/2010-12-14. Praha: České vysoké učení technické v Praze, 2010. s. 104-108. ISBN 978-80-01-04680-7.

TUROŇ, V. et al. The Zolotarev transform and selected application. In: *Technical Computing Bratislava 2010*. Bratislava, 2010-10-20. Bratislava: RT systems, s.r.o, 2010. s. 1-4. 18th Annual Conference Proceedings. ISBN 978-80-970519-0-7.

TUROŇ, V. et al. The Zolotarev transform. In: *Digital Technologies 2010*. Žilina, 2010-11-11/2010-11-12. Žilina: TU v Žilině, 2010. s. 1-2. ISBN 978-80-554-0304-5.

JANÍK, J., M. VLČEK a P. SOVKA. Selective Zolotarev-Cosines for Selective Spectral Transforms. In: *Digital Technologies 2010*. Žilina, 2010-11-11/2010-11-12. Žilina: TU v Žilině, 2010. ISBN 978-80-554-0304-5.

JANÍK, J. et al. Introducing the Discrete Zolotarev Cosine Transform. In: *Technical Computing Bratislava 2010*. Bratislava, 2010-10-20. Bratislava: RT systems, s.r.o, 2010. 18th Annual Conference Proceedings. ISBN 978-80-970519-0-7.

JANÍK, J., M. VLČEK a P. SOVKA. Introduction to Selective Zolotarev -Cosines. In: POLLÁK, P. a R. ČMEJLA, eds. *Analýza a zpracování řečových a biologických signálů - sborník prací 2010*. Semináře Katedry teorie obvodů, Praha, 2010-12-10/2010-12-14. Praha: České vysoké učení technické v Praze, 2010. s. 40-43. ISBN 978-80-01-04680-7.

ZAHRADNÍK, P., M. VLČEK a B. ŠIMÁK. Novel Design of Equiripple Half-Band FIR Filters. In: RODRIGUES LETA, F. a A. CONCI, eds. *IWSSIP 2010 Proceedings*. 17th International Conference on Systems, Signals and Image Processing, Rio de Janeiro, 2010-06-17/2010-06-19. Rio de Janeiro: EdUFF - Editora da Universidade Federal Fluminense, 2010. s. 53-56. ISBN 978-85-228-0565-5.

ZAHRADNÍK, P. a M. VLČEK. Extended Design of Equiripple Comb FIR Filters. In: *The 16th IEEE International Conference on Electronics, Circuits, and Systems, ICECS 2009*. The 16th IEEE International Conference on Electronics, Circuits, and Systems, Hammamet, 2009-12-13/2009-12-16. Monterey: IEEE Circuits and Systems Society, 2009. s. 880-883. ISBN 978-1-4244-5090-9. DOI [10.1109/ICECS.2009.5410764](https://doi.org/10.1109/ICECS.2009.5410764)

ZAHRADNÍK, P. a M. VLČEK. Frequency Transformations in Two-Dimensional Digital FIR Filters Design. In: DEDIEU, H., ed. *Circuit Theory and Design 93*. 11th European Conference on Circuit Theory and Design, Davos, 1993-08-30/1993-09-03. Amsterdam: Elsevier B.V., 1993. s. 379-384. ISBN 0-444-81664-X.

ZAHRADNÍK, P. a M. VLČEK. Twodimensional Bandstop FIR Filters. In: VODRÁŽKA, J., T. ZEMAN a M. NEVOSAD, eds. *11th International Conference RTT 2009*. 11th International Conference RTT 2009 - Research in Telecommunication Technology, Srby, 2009-09-02/2009-09-04. Praha: České vysoké učení technické v Praze, 2009. s. 0126\_0081. ISBN 978-80-01-04410-0.

ZAHRADNÍK, P. a M. VLČEK. Equiripple Approximation of Half-Band FIR Filters. *IEEE Transactions on Circuits and Systems II: Express Briefs*. 2009, **56**(12), 941-945. ISSN 1549-7747. DOI [10.1109/TCSII.2009.2034200](https://doi.org/10.1109/TCSII.2009.2034200)

ZAHRADNÍK, P. a M. VLČEK. Robust and Fast Design of Optimal Comb FIR Filters. In: CRUZ-ROLDÁN, F. a N. B. SMITH, eds. *Proceedings of the Eleventh IASTED International Conference on Signal and Image Processing*. The Eleventh IASTED International Conference on Signal and Image Processing, Honolulu, HI, 2009-08-17/2009-08-19. Anaheim: ACTA Press, 2009. s. 654-038. ISBN 978-0-88986-803-8.

ZAHRADNÍK, P., M. VLČEK a R. UNBEHAUEN. Design of Optimal Comb FIR Filters-Speed and Robustness. *IEEE SIGNAL PROCESSING LETTERS*. 2009, **16**(6), 465-468. ISSN 1070-9908. DOI [10.1109/LSP.2009.2016827](https://doi.org/10.1109/LSP.2009.2016827)

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Filter Design for Image Preprocessing in Image Communication. In: BEŠŤÁK, R. et al., eds. *The Eighth International Conference on Networks (ICN 2009)*. The Eighth International Conference on Networks, Cancun, 2009-03-01/2009-03-06. Los Alamitos: IEEE Computer Society, 2009. s. 40-45. ISBN 978-1-4244-3470-1.

ZAHRADNÍK, P., M. VLČEK a B. ŠIMÁK. Extended Analytical Design of Equiripple Comb FIR Filters. In: BRIFFA, J.A. a I. TABUS, eds. *Proceedings of the 3rd International Symposium on Communications, Control and Signal Processing*. The 3rd International Symposium on Communications, Control and Signal Processing, St. Julians, 2008-03-12/2008-03-14. New York: Institute of Electrical and Electronics Engineers, 2008. s. 282-287. ISBN 978-1-4244-1687-5.

ZAHRADNÍK, P. a M. VLČEK. Tuning of FIR Filters. In: CRISTEA, P., ed. *Proceedings of the Tenth IASTED International Conference on Signal & Image Processing*. The Tenth IASTED International Conference on Signal & Image Processing, Kailua-Kona, Hawaii, 2008-08-18/2008-08-20. Anaheim: ACTA Press, 2008. s. 411-415. ISBN 978-0-88986-750-5.

VLČEK, M. a P. ZAHRADNÍK. Design of Narrow Band FIR Filters. *International Journal of Systems Signal Control and Engineering Application*. 2008, **1**(1), 110-124. ISSN 1997-5422. DOI [10.3923/ijssceapp.2008.110.124](https://doi.org/10.3923/ijssceapp.2008.110.124)

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Simple Daughter Cards for TI DSP Starter Kits for the Education in Image and Video Processing. In: *European DSP Education and Research Symposium - Proceedings and Literature*. European DSP Education & Research Symposium, Tel Aviv, 2008-06-18. Houston: Texas Instruments, 2008. ISBN 978-0-9552047-2-2.

ZAHRADNÍK, P. a M. VLČEK. Robust Analytical Design of Equiripple Comb FIR. In: *ISCAS 2008*. 2008 IEEE International Symposium on Circuits and Systems, Seattle, 2008-05-18/2008-05-21. Piscataway: IEEE, 2008. s. 1128-1131. ISSN 0277-674X. ISBN 978-1-4244-2078-0.

VLČEK, M. a R. UNBEHAUEN. Correction to "Zolotarev polynomials and optimal FIR filters". *IEEE Transactions on Signal Processing*. 2000, **48**(7), 2171. ISSN 1053-587X.

VLČEK, M. a R. UNBEHAUEN. NOTE TO THE COEFFICIENTS OF THE CHEBYSHEV WINDOW FUNCTION. *AEU Archiv fur Elektronik und Ubertragungstechnik*. 1990, **44**(6), 495-496. ISSN 0001-1096. DOI [10.1109/31.103232](https://doi.org/10.1109/31.103232)

KUFUDAKIS, A. a M. VLČEK. MODIFICATION OF DEFLECTION METHOD FOR STUDY OF DIFFUSION-ELASTIC PHENOMENA IN PLATED LAYERS. *Czechoslovak Journal of Physics*. 1976, **1976**(B 26), 795-806. ISSN 0011-4626.

VLČEK, M. a R. UNBEHAUEN. ANALYTICAL SOLUTIONS FOR DESIGN OF IIR EQUIRIPPLE FILTERS. *IEEE Transactions on Acoustics, Speech, and Signal Processing*. 1989, **37**(10), 1518-1531. ISSN 0096-3518. DOI [10.1109/29.35390](https://doi.org/10.1109/29.35390)

VLČEK, M. a R. UNBEHAUEN. NOTE TO THE WINDOW FUNCTION WITH NEARLY MINIMUM SIDELobe ENERGY. *IEEE Transactions on Circuits and Systems*. 1990, **37**(10), 1323-1324. ISSN 1057-7122.

VLČEK, M. a R. UNBEHAUEN. DEGREE, RIPPLE, AND TRANSITION WIDTH OF ELLIPTIC FILTERS. *IEEE Transactions on Circuits and Systems*. 1989, **36**(3), ISSN 1057-7122. DOI [10.1109/31.17602](https://doi.org/10.1109/31.17602)

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Zero Frequency Notch FIR Filters. In: DE FIGUEIREDO, R.J.P., ed. *Proceedings of the Ninth IASTED International Conference on Signal and Image Processing*. The Ninth IASTED International Conference on Signal and Image Processing, Honolulu, Hawaii, 2007-08-20/2007-08-22. Anaheim: ACTA Press, 2007. s. 69-72. ISBN 978-0-88986-676-8.

ZAHRADNÍK, P., M. VLČEK a B. ŠIMÁK. Analytical Design of an Equiripple DC-Notch FIR Filter. In: *2007 IEEE International Symposium on Circuits and Systems*. New Orleans, 2007-05-27/2007-05-30. Piscataway: IEEE, 2007. s. 2060-2063. ISBN 978-1-4244-0920-4.

BIČÁK, J., M. LAIPERT a M. VLČEK. *Lineární obvody a systémy*. Praha: ČVUT. Česká technika - nakladatelství ČVUT, 2007. ISBN 978-80-01-03649-5.

ZAHRADNÍK, P., M. VLČEK a B. ŠIMÁK. DC-Notch FIR Filters for Zero-IF Receivers. In: DINI, C. et al., eds. *Sixth International Conference on Networking (ICN 2007)*. The Sixth International Conference on Networking, Sainte-Luce, 2007-04-22/2007-04-28. Los Alamitos: IEEE Computer Society Press, 2007. s. 069. ISBN 0-7695-2805-8. DOI [10.1109/ICN.2007.33](https://doi.org/10.1109/ICN.2007.33)

ZAHRADNÍK, P. a M. VLČEK. Note on the Design of an Equiripple DC-Notch FIR Filter. *IEEE Transactions on Circuits and Systems II: Express Briefs*. 2007, **54**(2), 196-199. ISSN 1549-7747. DOI [10.1109/TCSII.2006.883454](https://doi.org/10.1109/TCSII.2006.883454)

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Design of Maximally Flat Notch FIR Filters. In: ENYEDI, B. a A. REICHARDT, eds. *IWSSIP 2006 and COST 292*. 13th International Conference on Systems, Signals and Image Processing, Budapest, 2006-09-21/2006-09-23. Košice: HARLEQUIN s.r.o., 2006. s. 357-360. ISBN 80-89082-09-2.

ZAHRADNÍK, P. a M. VLČEK. Precise Notch FIR Filters. In: HWANG, J.-N., ed. *Proceedings of the Eighth IASTED International Conference on Signal and Image Processing*. 8th IASTED International Conference on Signal and Image Processing, Honolulu, 2006-08-14/2006-08-16. Anaheim: ACTA Press, 2006. s. 469-472. ISSN 1482-7921. ISBN 978-0-88986-583-9.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Nearly Equiripple Half-Band FIR Filters. In: HWANG, J.-N., ed. *Proceedings of the Eighth IASTED International Conference on Signal and Image Processing*. 8th IASTED International Conference on Signal and Image Processing, Honolulu, 2006-08-14/2006-08-16. Anaheim: ACTA Press, 2006. s. 465-468. ISSN 1482-7921. ISBN 978-0-88986-583-9.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Fast Design of Precise Equiripple Notch FIR Filters. In: LORENZ, P. et al., eds. *Proceedings ICN 2006 / ICONS 2006 / MCL 2006*. International Conference on Networking, Morne, 2006-04-23/2006-04-28. Piscataway: IEEE, 2006. s. 157. ISSN 1063-6382. ISBN 0-7695-2570-9.

ŠIMÁK, B., M. VLČEK a P. ZAHRADNÍK. Analytical Design of Bandstop FIR Filters for Image Processing. In:

*ISCCSP 2006 Proceedings*. Second International Symposium on Communications, Control and Signal Processing, Marrakech, 2006-03-13/2006-03-15. Monterey: IEEE Circuits and Systems Society, 2006. s. cr1182. ISBN 2-908849-17-8.

ZAHRADNÍK, P. a M. VLČEK. An Analytical Procedure for Critical Frequency Tuning of FIR Filters. *IEEE Transactions on Circuits and Systems II-Express Briefs*. 2006, **53**(1), 72-76. ISSN 1057-7130. DOI [10.1109/TCSII.2005.855730](https://doi.org/10.1109/TCSII.2005.855730)

VLČEK, M. a P. ZAHRADNÍK. Design of Equiripple FIR Notch Filters. In: HILLESTAD, O. a A. BOPARDIKAR, eds. *Proceedings of the 8th COST 276 Workshop*. 8th COST 276 Workshop, Trondheim, 2005-05-26/2005-05-28. Trondheim: Norwegian Society on Signal Processing, 2005. s. 117-122. ISBN 82-997105-0-2.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design Method for Optimal Equiripple Comb FIR Filters. *IEEE Transactions on Circuits and Systems II-Express Briefs*. 2005, **52**(2), 112-115. ISSN 1057-7130.

PŘIKRYL, J. a M. VLČEK. Performance of a Road Sign Shape Detector on Lossy-Compressed Image Data. In: HILLESTAD, O. a A. BOPARDIKAR, eds. *Proceedings of the 8th COST 276 Workshop*. 8th COST 276 Workshop, Trondheim, 2005-05-26/2005-05-28. Trondheim: Norwegian Society on Signal Processing, 2005. s. 83-86. ISBN 82-997105-0-2.

ZAHRADNÍK, P. a M. VLČEK. Fast Design of Precise Maximally Flat Notch FIR Filters. In: *Proceedings of the International Conference on Communication and Information 2005*. International Conference on Communication and Information, Beijing, 2005-06-26/2005-06-29. Beijing: Beijing University of Posts and Telecommunications Press (BUPT Publishing House), 2005. s. 206-210. ISBN 7-5635-1114-8.

ŠIMÁK, B. a M. VLČEK. Analytical Design of IIR Equiripple Filters. In: *Digital Technologies 2005*. Digital Technologies 2005, Žilina, 2005-12-02. Žilina: Slovenská elektrotechnická spoločnosť, 2005. s. 73-75. ISBN 80-8070-486-4.

ZAHRADNÍK, P. a M. VLČEK. Precise Maximally Flat Notch FIR Filters. In: MARCELLIN, M.W., ed. *Proceedings of the Seventh IASTED International Conference on Signal and Image Processing*. The Seventh IASTED International Conference on Signal and Image Processing, Honolulu, Hawaii, 2005-08-15/2005-08-17. Anaheim: Acta Press, 2005. s. 479-066. ISBN 0-88986-518-3.

ZAHRADNÍK, P. a M. VLČEK. Optimal Equiripple Comb FIR Filters. In: MARCELLIN, M.W., ed. *Proceedings of the Seventh IASTED International Conference on Signal and Image Processing*. The Seventh IASTED International Conference on Signal and Image Processing, Honolulu, Hawaii, 2005-08-15/2005-08-17. Anaheim: Acta Press, 2005. s. 479-067. ISBN 0-88986-518-3.

VLČEK, M. a B. ŠIMÁK. Design of IIR Equiripple Filters in z-Domain. In: MILICIC, M., ed. *Abstracts of Papers EUROCON 2005*. EUROCON 2005, Bělehrad, 2005-11-21/2005-11-24. Belgrade: School of Electrical Engineering, 2005. s. 14. ISBN 86-7466-218-8.

VLČEK, M. a B. ŠIMÁK. Design of IIR Equiripple Filters in z-Domain. In: MILIĆ, L., ed. *EUROCON 2005 - The International Conference on "Computer as a Tool"*. EUROCON 2005, Bělehrad, 2005-11-21/2005-11-24. Belgrade: IEEE, 2005. s. SS\_48. ISBN 1-4244-0049-X. DOI [10.1109/EURCON.2005.1629893](https://doi.org/10.1109/EURCON.2005.1629893)



ŽIŠKA, P., M. VLČEK a M. LAIPERT. Design of Digital All-pass Filters with Equal-Ripple Group Delay Frequency Response. In: *ECCTD '05 - 2005 European Conference on Circuit Theory and Design*. 2005 European Conference on Circuit Theory and Design, Cork, 2005-08-29/2005-09-02. Cork: University College Cork, 2005. s. 365-368. ISBN 0-7803-9066-0.

ZAHRADNÍK, P. a M. VLČEK. Fast Design of Optimal Equiripple Comb FIR Filters. In: *Proceedings of the International Conference on Communication and Information 2005*. International Conference on Communication and Information, Beijing, 2005-06-26/2005-06-29. Beijing: Beijing University of Posts and Telecommunications Press (BUPT Publishing House), 2005. s. 196-201. ISBN 7-5635-1114-8.

ZAHRADNÍK, P., M. VLČEK a B. ŠIMÁK. Analytical Design of Maximally Flat Notch FIR Filters for Communication Purposes. In: LORENZ, P. a P. DINI, eds. *Networking - ICN 2005*. 4th International Conference on Networking, Reunion Island, 2005-04-17/2005-04-21. Berlin: Springer-Verlag, 2005. s. 392-400. ISSN 0302-9743. ISBN 3-540-25338-6.

ŠPETÍK, R., M. VLČEK a P. SOVKA. Spectral Analysis of Non-Stationary Signals using Zolotarev Polynomials. In: *7th COST 276 Workshop*. Ankara, 2004-11-04/2004-11-05. Ankara: Middle East Technical University, 2004. s. 6.

VLČEK, M. a P. ZAHRADNÍK. Fast Analytical Design Method for Maximally Flat Notch FIR Filters. In: *7th COST 276 Workshop*. Ankara, 2004-11-04/2004-11-05. Ankara: Middle East Technical University, 2004.

KOVÁŘ, B., J. PŘIKRYL a M. VLČEK. Flexible License Plate Recognition System. In: *Proceedings of the 6th COST 276 Workshop on Information and Knowledge Management for Integrated Media Communication*. Thessaloniki, 2004-05-06/2004-05-07. Thessaloniki: Informatics and Telematics Institute Centre for Research and Technology, Hellas,, 2004. s. 72-76. ISBN 960-88136-0-3.

ZAHRADNÍK, P. a M. VLČEK. Fast Design of Optimal Comb FIR Filters. In: *Lecture Notes in Artificial Intelligence 3215, Knowledge-Based Intelligent Information and Engineering Systems*. 8th International Conference Knowledge-Based Intelligent Information and Engineering Systems, Wellington, 2004-09-20/2004-09-25. Berlin: Springer, 2004. s. 733-739. ISBN 3-540-23205-2.

ZAHRADNÍK, P. a M. VLČEK. Design of 2-D Narrow Bandstop FIR Filters for Image Enhancement. In: *Lecture Notes in Artificial Intelligence 3215, Knowledge-Based Intelligent Information and Engineering Systems*. 8th International Conference Knowledge-Based Intelligent Information and Engineering Systems, Wellington, 2004-09-20/2004-09-25. Berlin: Springer, 2004. s. 726-732. ISBN 3-540-23205-2.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Maximally Flat Notch FIR Filters. In: *6th IASTED International Conference on Signal and Image Processing SIP'2004*. Honolulu, Hawaii, 2004-08-23/2004-08-25. Hawaii: IASTED, 2004. s. 351-356. ISSN 1482-7921.

ZAHRADNÍK, P. a M. VLČEK. Fast Analytical Design of Maximally Flat Notch FIR Filters. *Communications*. 2004, **6**(4), 34-37. ISSN 1335-4205.

VLČEK, M. a P. ZAHRADNÍK. Fast Design of 2-D Narrow Bandstop FIR Filters. In: *Proceedings of the 6th COST 276 Workshop on Information and Knowledge Management for Integrated Media Communication*. Thessaloniki, 2004-05-06/2004-05-07. Thessaloniki: Informatics and Telematics Institute Centre for

Research and Technology, Hellas,, 2004. s. 5-10. ISBN 960-88136-0-3.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Arbitrary Oriented Asteroidal 2-D FIR Filters. In: *Computational Science - ICCS 2004: 4th International Conference*. International Conference on Computational Science, Krakow, 2004-06-06/2004-06-09. Berlin: Springer, 2004. s. 64-71. ISSN 0302-9743. ISBN 3-540-22129-8.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of 2-D Narrow Bandstop FIR Filters. In: *Computational Science - ICCS 2004: 4th International Conference*. International Conference on Computational Science, Krakow, 2004-06-06/2004-06-09. Berlin: Springer, 2004. s. 56-64. ISSN 0302-9743. ISBN 3-540-22129-8.

ŠPETÍK, R., M. VLČEK a P. SOVKA. Application of Zolotarev Polynomials for Non-Stationary Signals Spectral Analysis. In: *Digital Technologies 2004*. Žilina, 2004-12-02. Žilina: Žilinská univerzita, 2004. s. 49-54. ISBN 80-8070-334-5.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Maximally Flat Notch FIR Filters. In: *ICSES'04 International Conference on Signals and Electronic Systems*. Poznan, 2004-09-13/2004-09-15. Poznaň: PTETiS, 2004. s. 31-34. ISBN 83-906074-7-6.

ZAHRADNÍK, P., B. ŠIMÁK a M. VLČEK. Fast Design of 2-D Extremely Narrow Bandstop FIR Filters. In: *MWSCAS 2004*. The 47th IEEE International Midwest Symposium on Circuits and Systems, Hiroshima, 2004-07-25/2004-07-28. Piscataway: IEEE, 2004. s. II-69-II-72. ISBN 0-7803-8347-8.

ZAHRADNÍK, P. a M. VLČEK. Simple Analytical Design of Comb FIR Filters. In: *MWSCAS 2004*. The 47th IEEE International Midwest Symposium on Circuits and Systems, Hiroshima, 2004-07-25/2004-07-28. Piscataway: IEEE, 2004. s. II-65-II-68. ISBN 0-7803-8347-8.

ZAHRADNÍK, P. a M. VLČEK. Fast Analytical Design Algorithms for FIR Notch Filters. *IEEE Transactions on Circuits and Systems*. 2004, **51**(3), 608-623. ISSN 1057-7122. DOI [10.1109/TCSI.2003.822404](https://doi.org/10.1109/TCSI.2003.822404)

DAVÍDEK, V., M. LAIPERT a M. VLČEK. *Analogové a číslicové filtry*. 2 vyd. Praha: ČVUT. Vydavatelství ČVUT, 2004. ISBN 80-01-03026-1.

LAIPERT, M., M. VLČEK a J. VRBATA. Contribution to the Chebyshev Approximations of the Normalized Low-Pass Prototype. *Radioengineering*. 2004, **13**(1), 32-36. ISSN 1210-2512.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Optimal Comb FIR Filters. In: ŘÍHA, B., ed. *Proceedings of Workshop 2004*. WORKSHOP 2004, Praha, 2004-03-22/2004-03-26. Praha: České vysoké učení technické v Praze, 2004. s. 472-473. ISBN 80-01-02945-X.

ZAHRADNÍK, P. a M. VLČEK. Optimal Highly Selective FIR Comb Filters for Communication Purposes. In: *ICN'2004*. Gosier, 2004-02-29/2004-03-04. Anchorage, Alaska: IEEE, 2004. s. 951-956. ISBN 0-86341-326-9.

ZAHRADNÍK, P. a M. VLČEK. Progress in the Analytical Design of Optimal Equiripple Comb FIR Filter. In: KOVÁŘ, B., J. PŘIKRYL a M. VLČEK, eds. *Proceedings of the 5th COST 276 Workshop*. 5th COST 276 Workshop, Praha, 2003-10-02/2003-10-03. Praha: České vysoké učení technické v Praze, Fakulta dopravní, 2003. s. 1-4. ISBN 80-01-02840-2.

ZAHRADNÍK, P. a M. VLČEK. Latest Results in the Analytical Design of Optimal Equiripple Comb FIR Filters. In: ZAJC, B. a M. TKALČIČ, eds. *EUROCON 2003 - Computer As a Tool - Proceedings*. Eurocon 2003, Ljubljana, 2003-09-22/2003-09-24. Los Alamitos: IEEE Computer Society Press, 2003. s. 169-172. ISBN 0-7803-7763-X. DOI [10.1109/EURCON.2003.1248003](https://doi.org/10.1109/EURCON.2003.1248003)

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of 2-D FIR Nail Filters. In: HAMZA, M.H., ed. *Signal and Image Processing*. The Fifth IASTED International Conference on Signal and Image Processing, Honolulu (Hawaii), 2003-08-13/2003-08-15. Anaheim: Acta Press, 2003. s. 263-268. ISSN 1482-7921. ISBN 0-88986-378-4.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Comb FIR Filters. In: ŠIMÁK, B. a P. ZAHRADNÍK, eds. *Recent Trends in Multimedia Information Processing*. 10th International Workshop on Systems, Signals and Image Processing, Praha, 2003-09-10/2003-09-11. Praha: Sdělovací technika, 2003. s. 1-4. ISBN 80-86645-05-3.

ZAHRADNÍK, P. a M. VLČEK. Design of Asteroidal 2-D FIR Filters. In: *Digital Communications '03*. Digital Communications '03 - International Workshop, Žilina, 2003-11-25. Žilina: EDIS-vydavatelstvo ŽU, 2003. s. 99-104. ISBN 80-8070-165-2.

KOVÁŘ, B., J. PŘIKRYL a M. VLČEK, eds. *Proceedings of the 5th COST 276 Workshop*. Praha, 2003-10-02/2003-10-03. Praha: České vysoké učení technické v Praze, Fakulta dopravní, 2003. ISBN 80-01-02840-2.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Optimal FIR Comb Filters. In: *ICC 2003 - New Frontiers in Telecommunications*. Anchorage (Alaska), 2003-05-11/2003-05-15. Piscataway: IEEE, 2003. s. 3590-3593. ISBN 0-7803-7803-2.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Optimal Equiripple FIR Comb Filters. In: *ICT'2003*. Papeete (Tahiti), 2003-02-23/2003-03-01. Piscataway: IEEE, 2003. s. P558. ISBN 0-7803-7662-5. DOI [10.1109/ICTEL.2003.1191470](https://doi.org/10.1109/ICTEL.2003.1191470)

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Arbitrary Oriented Asteroidal 2-D FIR Filters. In: *APCCAS 2002 Proceedings*. APCCAS 2002, Denpasar, Bali, 2002-10-28/2002-10-31. Monterey: IEEE Circuits and Systems Society, 2002. s. 217. ISBN 0-7803-7691-9. DOI [10.1109/APCCAS.2002.1115048](https://doi.org/10.1109/APCCAS.2002.1115048)

ZAHRADNÍK, P., M. VLČEK a B. ŠIMÁK. Equiripple FIR Triple Narrow Band Filters. In: *APCCAS 2002 Proceedings*. APCCAS 2002, Denpasar, Bali, 2002-10-28/2002-10-31. Monterey: IEEE Circuits and Systems Society, 2002. s. 218. ISBN 0-7803-7691-9. DOI [10.1109/APCCAS.2002.1114913](https://doi.org/10.1109/APCCAS.2002.1114913)

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of Frequency Scaled Asteroidal 2-D FIR Filters. In: *MWSCAS-2002 Conference Proceedings*. The 2002 45th Midwest Symposium on Circuits and Systems, Tulsa (Oklahoma), 2002-08-04/2002-08-07. Piscataway: IEEE, 2002. s. III\_680-III\_683. ISBN 0-7803-7524-6.

VLČEK, M. *Mobilní aplikace v telematice a inteligentní vozidlo*. [Nepublikovaná přednáška] Ericsson. 2002-10-09.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of 2-D FIR Filters with Asteroidal Shape. In: YOUNAN, N., ed. *Proceedings of the Fourth IASTED International Conference Signal and Image Processing*. Signal and Image

Processing, Kaua'i, Hawaii, 2002-08-12/2002-08-14. Anaheim: Acta Press, 2002. s. 17-20. ISSN 1482-7921. ISBN 0-88986-340-7.

ZAHRADNÍK, P. a M. VLČEK. Analytical Approach to the Design of 2-D FIR filters with Asteroidal Shape. In: *Proceedings of the International Conference Research in Telecommunication Technology*. RTT'2002 - International Conference Research in Telecommunication Technology, Žilina, 2002-09-17/2002-09-19. Žilina: University of Žilina, 2002. s. 64-67. ISBN 80-7100-991-1.

ZAHRADNÍK, P. a M. VLČEK. Design of Equiripple FIR Double Narrow Band Filters for DTMF Applications. In: YUANAN, L., ed. *Proceeding of the International Conference on Telecommunications 2002 - Volume 1*. International Conference on Telecommunications 2002, Beijing, 2002-06-01. Beijing: Publishing House of Electronics Industry, 2002. s. 104-107. ISBN 7-5053-7702-7.

VLČEK, M. a P. ZAHRADNÍK. Two-Dimensional FIR Asteroidal Filters. In: CID-SUEIRO, J. a A. DE ROSA, eds. *Information and Knowledge Management for Integrated Media Communications*. Information and Knowledge Management for Integrated Media Communication, Firenze, 2002-03-25/2002-03-26. Firenze: Universita degli Studi, 2002. s. S2/1. ISBN 84-89315-26-4.

ZAHRADNÍK, P. a M. VLČEK. Analytical Design of 2-D FIR Filters for Image Compression. In: LIATSIS, P., ed. *Recent Trends in Multimedia Information Processing*. Manchester, 2002-11-07/2002-11-08. Singapore: World Scientific, 2002. s. 278-281. ISBN 981-238-243-7.

VRBATA, J., M. LAIPERT a M. VLČEK. Synthesis of the Group Delay Equalizers. In: *ICECS 2002*. The 9th IEEE International Conference on Electronics, Circuits and Systems, Dubrovnik, 2002-09-15/2002-09-18. Zagreb: ICECS 2002 Organizing Committee, 2002. s. 133-136. ISBN 0-7803-7597-1.

VRBATA, J., M. LAIPERT a M. VLČEK. Návrh korektoru skupinového zpoždění počítačem. In: *Nové smery v spracovaní signálov VI*. Nové smery v spracovaní signálov VI., Tatranské Zruby, 2002-04-24/2002-04-26. Liptovský Mikuláš: Vojenská akadémia, 2002. s. 28-31. ISBN 80-8040-180-2.

VLČEK, M. a P. ZAHRADNÍK. Digital Multiple Notch Filters Performance. In: PORRA, V. et al., eds. *Circuit Paradigm in the 21st Century*. ECCTD'01, Espoo, 2001-08-28/2001-08-31. Helsinki: Helsinki University of Technology, 2001. s. I-49-I-52. ISSN 1455-8440. ISBN 951-22-5572-3.

VLČEK, M. a P. ZAHRADNÍK. Analytical Design of FIR Multiple Notch Filters. In: JETLUND, O., ed. *NORSIG-2001*. Trondheim, 2001-10-18/2001-10-20. Trondheim: Norwegian Society on Signal Processing, 2001. s. 1-5. ISBN 82-995422-1-9.

ZAHRADNÍK, P. a M. VLČEK. Digital FIR Double Notch Filters. In: HAMZA, M.H., ed. *Signal and Image Processing*. 7-th International Conference Signal and Image Processing, Honolulu, Hawai, 2001-08-13/2001-08-16. Calgary: Acta Press, 2001. s. 369-372. ISSN 1482-7921. ISBN 0-88986-297-4.

LAIPERT, M. a M. VLČEK. Stejnoměrná aproximace skupinového zpoždění. *Slaboproudý obzor*. 2001, **58**(1), 18-21. ISSN 0037-668X.

VLČEK, M. Dopravní telematika - místo pro nové aplikace. *Komunikace*. 2001,(11), 6-8. ISSN 1211-9962.

VLČEK, M. Quo Vadis (tele)komunikace. In: *Teleinformatika 2001*. Praha, 2001-11-27/2001-11-28. Praha: WIRELESSCOM, 2001. s. 7-12.

VRBATA, J., M. LAIPERT a M. VLČEK. Remark to Chebyshev Approximation of the Normalized low-pass Filter Prototype. In: *Conference Proceedings of the 11th International Czech-Slovak Scientific Conference*. Conference Proceedings 11th International Czech\_Slovak Scientific Conference, Brno, 2001-05-10/2001-05-11. Brno: VUT v Brně, FEI, Ústav radioelektroniky, 2001. s. 58-61. ISBN 80-214-1861-3.

VLČEK, M. a P. ZAHRADNÍK. Analytical Design of Multiple Notch Filters. In: *Proceedings of the Norwegian Signal Processing Symposium NORSIG-2001*. Norwegian Signal Processing Symposium NORSIG-2001, Trondheim, 2001-10-18/2001-10-20. Trondheim: Norwegian Society on Signal Processing, 2001. s. 1-5. ISBN 82-995422-1-9.

VLČEK, M. a P. ZAHRADNÍK. Latest Results in Equiripple FIR Multiple Notch Filter. In: *Proceedings of the International Conference Research in Telecommunication Technology RTT 2001*. International Conference Research in Telecommunication Technology RTT 2001, Lednice, 2001-09-24/2001-09-26. Brno: Czech Section of the IEEE VUT, 2001. s. 137-140. ISBN 80-214-1938-5.

ZAHRADNÍK, P. a M. VLČEK. Digital FIR Double Notch Filters. In: *Proceedings of the IASTED International Conference Signal and Image Processing*. IASTED International Conference Signal and Image Processing, Honolulu, 2001-08-13/2001-08-16. Honolulu: International Association of Science and Technology for Development ACTA Press, 2001. s. 369-372. ISBN 0-88986-297-4.

VLČEK, M. a P. ZAHRADNÍK. Digital Multiple Notch Filters Performance, CD ROM. In: *Proceedings of the 15th European Conference on Circuit Theory and Design ECCTD'01, CD ROM*. 15th European Conference on Circuit Theory and Design ECCTD'01, Helsinky, 2001-08-28/2001-08-31. Helsinki: Helsinki University of Technology, 2001. s. I-49-I-52. ISBN 951-22-5571-5.

VLČEK, M. Algorithms for Zolotarev Polynomials and their Applications. In: *ABSTRACTS. Modelling 2001*, Plzeň, 2001-06-25/2001-06-29. Plzeň: Západočeská universita, 2001. s. 69.

SVÍTEK, M., J. BORKA a M. VLČEK. *Modelování systémů a procesů*. Praha: České vysoké učení technické v Praze, 2001. ISBN 80-01-02361-3.

LAIPERT, M., M. VLČEK a J. VRBATA. Aplikace inverzní Čebyševovy aproximace. In: *Nové směry ve zpracování signálů 5*. Nové směry v spracovaní signálov V., Liptovský Mikuláš, 2000-05-24/2000-05-26. Liptovský Mikuláš: Vojenská akadémia, 2000. s. 19-22. ISBN 80-8040-125-X.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Analytical Design of FIR Filters. *IEEE Transactions on Signal Processing*. 2000, **50** 2705-2709. ISSN 1053-587X.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Asymptotic Characteristics of 1-D Finite Impulse Response Filters. In: LANDEROS, A., ed. *Proceedings of ICT 2000, International Conference on Communications*. ICT 2000 Internal Conference on Telecommunications, Acapulco, 2000-05-22/2000-05-25. Mexico City: ITESM, 2000. ISBN 968-36-7762-2.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Asymptotic Properties of Digital FIR Filters. In: TAPPIO, S., ed.

NORSIG 2000 IEEE Nordic Signal Processing Symposium. Kolmaren-Norrkoping, 2000-06-05/2000-06-07. Piscataway: IEEE, 2000. s. 207-210.

DAVÍDEK, V., M. LAIPERT a M. VLČEK. *Analogové a číslicové filtry*. Praha: České vysoké učení technické v Praze, 2000. ISBN 80-01-02178-5.

LAIPERT, M., M. VLČEK a J. VRBATA. *Funkce INVCHEBY2 a INVCHEBY pro program MATLAB*. [Výzkumná zpráva] Praha: České vysoké učení technické v Praze, Fakulta elektrotechnická, 2000. Zpráva č. #VZ2000/1.

LAIPERT, M., M. VLČEK a J. VRBATA. Remark to Inverse Chebyshev Approximation of Normalized Lowpass Filter Prototype. In: ONDRÁČEK, O., I. DROBNÁ a I. PROKOPOVÁ, eds. *Radioelektronika 2000 - Conference Proceedings*. Radioelektronika 2000, Bratislava, 2000-09-12/2000-09-13. Bratislava: STU v Bratislave, FEL, 2000. s. I-27-I-30. ISBN 80-227-1389-9.

ZAHRADNÍK, P., M. VLČEK a R. UNBEHAUEN. Analytical Design of FIR Filters. In: *Proceedings of the IEEE International Conference on Electronics, Circuits and Systems ICECS'99*. The 6th IEEE International Conference on Electronics, Circuits and Systems ICECS'99, Pafos, Cyprus, 1999-09-05/1999-09-08. Piscataway: IEEE, 1999. s. 71-74. ISBN 0-7803-5682-9.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Analytical Approach to the Design of FIR Filters. In: BECCARI, C. et al., eds. *ECCTD '99*. Stresa, 1999-08-29/1999-09-02. Politecnico di Torino, 1999. s. 209-212.

ZAHRADNÍK, P., M. VLČEK a R. UNBEHAUEN. Contribution to the Analytical Design of FIR Half-Band Filters. In: POLLÁK, P. a R. ČMEJLA, eds. *Polish-Hungarian-Czech Workshop on Circuit Theory, Signal Processing, and Application*. 22th Czech-Hungarian-Polish Workshop on Circuit Theory and Application, Herbertov, 1999-09-22/1999-09-26. Praha: České vysoké učení technické v Praze, 1999. s. 7-12. ISBN 80-01-02047-9.

ZAHRADNÍK, P., M. VLČEK a R. UNBEHAUEN. On the Design of Almost Equiripple FIR Half-Band Filters. In: POLLÁK, P. a R. ČMEJLA, eds. *Polish-Hungarian-Czech Workshop on Circuit Theory, Signal Processing, and Application*. 22th Czech-Hungarian-Polish Workshop on Circuit Theory and Application, Herbertov, 1999-09-22/1999-09-26. Praha: České vysoké učení technické v Praze, 1999. s. 1-6. ISBN 80-01-02047-9.

LÍBAL, V. et al. Road Sign Recognition System using TMS320C80. In: MEYR, H., ed. *Proceedings of DSP Germany'98*. DSP Germany'98, München, 1998-10-06/1998-10-08. Poing/München: WEKA Fachverlag, 1998. s. 41-48.

LÍBAL, V. et al. Road Sign Recognition System using TMS320C80. In: *Proceedings of the Second European DSP Education and Research Conference*. The Second European DSP Education and Research, Paris, 1998-09-23/1998-09-24. Houston: Texas Instruments, 1998. s. 33-39.

ZAHRADNÍK, P., M. VLČEK a R. UNBEHAUEN. Analytical Design of Almost Equiripple FIR Half-Band Filters. In: *Proceedings of the 1998 IEEE International Symposium on Circuits and Systems*. The 1998 IEEE International Symposium on Circuits and Systems, Monterey, 1998-05-31/1998-06-03. Monterey: IEEE Circuits and Systems Society, 1998. s. 90-93. ISBN 0-7803-4458-8.

LAIPERT, M. a M. VLČEK. Aproximace skupinového zpoždění. In: ŠURIANSKY, J., ed. *Nové směry v spracování*

*signálov IV. Nové smery v spracovaní signálov IV*, Liptovský Mikuláš, 1998-05-27/1998-05-29. Liptovský Mikuláš: Vojenská akadémia, 1998. s. 234-237. ISBN 80-8040-071-7.

LAIPERT, M. a M. VLČEK. Group Delay Approximation. In: SVAČINA, J., ed. *Radioelectronics 98*. Radioelektronika 98, Brno, 1998-04-28/1998-04-29. Brno: VUT v Brně, 1998. s. 13-16. ISBN 80-214-0983-5.

LÍBAL, V., L.J.M. ROTHKRANTZ a M. VLČEK. *Mouth Segmentation Based on Color Analysis*. [Výzkumná zpráva] Delft: Technical University of Delft, 1996. Zpráva č. REPORT 96-164.

LÍBAL, V., P. ZAHRADNÍK a M. VLČEK. Automatic Template Generation for Image Recognition. In: *Workshop 97*. Praha, 1997-01-20/1997-01-22. Praha: České vysoké učení technické v Praze, 1997. s. 179-180.

LÍBAL, V. et al. Traffic Signs Identification and Automatic Template Generation. In: *Workshop 96*. Brno, 1996-01-22/1996-01-24. Praha: České vysoké učení technické v Praze, 1996. s. 185-186.

LAIPERT, M. a M. VLČEK. *Lineární obvody*. Praha: České vysoké učení technické v Praze, 1995. ISBN 80-01-01237-9.

SÝKORA, J., B. ŠIMÁK a M. VLČEK. The System Approach to Education in Digital Signal Processing for Telecommunications. In: *Second European Congress on Systems Science. Volume IV*. Second European Congress on Systems Science, Praha, 1993-10-05/1993-10-08. Praha: Systems Science and Information, 1993. s. 1357-1360.

ZAHRADNÍK, P. a M. VLČEK. Frequency Transformations in Two-Dimensional Digital FIR Filters Design. In: *Proceedings of ECCTD 93. Part I*. European Conference on Circuit Theory and Design, Davos, 1993-08-30/1993-09-03. Amsterdam: Elsevier, 1993. s. 379-384. ISBN 0-444-81664-X.

VLČEK, M. a L. JIREŠ. Fast Design Algorithms for FIR Notch Filters. In: *Proceedings of IEEE International Symposium on Circuits and Systems, ISCAS 94. Vol. 2*. IEEE International Symposium on Circuits and Systems, London, 1994-05-30/1994-06-02. Piscataway: IEEE, 1994. s. B297-B300. ISBN 0-7803-1915-X. DOI [10.1109/ISCAS.1994.408963](https://doi.org/10.1109/ISCAS.1994.408963)

VLČEK, M. a P. ZAHRADNÍK. Robust Algorithms and Fast Digital Filter Design. In: *CTU Seminar 94*. Praha, 1994-01-17/1994-01-20. Praha: České vysoké učení technické v Praze, 1994. s. 193-194.

ŠKVOR, Z. a M. VLČEK. System of Thin Diaphragm - Air Gap in Electrostatic Transducer. In: *Workshop 93*. Praha, 1993-01-18/1993-01-21. Praha: České vysoké učení technické v Praze, 1993. s. 195-196.

VLČEK, M. Maximally Flat FIR Half-Band Filters. In: *Workshop 93*. Praha, 1993-01-18/1993-01-21. Praha: České vysoké učení technické v Praze, 1993. s. 197-198.

VLČEK, M., F. KOPECKÝ a M. SVÍTEK. Úvod do telematiky. In: *Teleinformatika 2000*. Praha, 2000-11-29. Praha: Wirelesscom, 2000. s. 101-105.

LAIPERT, M., M. VLČEK a J. VRBATA. Remark to Inverse Chebyshev Approximation of Normalized Lowpass Filter Prototype. In: *Radioelektronika 2000*. Bratislava, 2000-09-13/2000-09-15. Bratislava: STU v Bratislave, FEI, 2000. s. I-27-I-30. ISBN 80-227-1389-9.

LAIPERT, M., M. VLČEK a J. VRBATA. Aplikace inverzní Čebyševovy aproximace. In: *Nové smery spracovanie signalov V. Nové smery spracovanie signalov V.*, Liptovský Mikuláš, 2000-05-29/2000-05-30. Liptovský Mikuláš: Vojenská akadémia, 2000. s. 19-22. ISBN 80-8040-125-X.

LAIPERT, M., M. VLČEK a J. VRBATA. *Funkce INVCEBY 2 a INVCEBY pro program MATLAB*. [Výzkumná zpráva] Praha: České vysoké učení technické v Praze, Fakulta elektrotechnická, 2000. Zpráva č. !!!.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Asymptotic Behaviour of FIR Filters. In: *ISCAS 2000*. Geneva, 2000-05-28/2000-05-31. Piscataway: IEEE, 2000. s. I-100-I-103. ISBN 0-7803-5485-0.

KLEČKA, T. et al., eds. *Diagnostika vlhkých staveb*. Praha: WTA CZ, 2000.

KLEČKA, T. et al., eds. *Sanace vlhkého zdiva*. Praha: WTA CZ, 2000. ISBN 80-02-01367-2.

KLEČKA, T. et al., eds. *Diagnostika vlhkých staveb*. Praha: WTA CZ, 2000. ISBN 80-02-01366-2.

SVÍTEK, M., M. VLČEK a J. PRCHAL. Large Systems Decomposition Method for Transport Network Control. In: STREJČ, A., ed. *Proceedings of Workshop 2000*. Workshop 2000, Praha, 2000-02-14/2000-02-16. Praha: České vysoké učení technické v Praze, 2000. s. 674. ISBN 80-01-02229-3.

NOVÁK, M., J. FABER a M. VLČEK. Investigation of Micro-Sleep Markers for Drivers, Pilots and System Operators. In: STREJČ, A., ed. *Proceedings of Workshop 2000*. Workshop 2000, Praha, 2000-02-14/2000-02-16. Praha: České vysoké učení technické v Praze, 2000. s. 671. ISBN 80-01-02229-3.

SVÍTEK, M., M. VLČEK a F. KOPECKÝ. Telematika - nástroj realizace aktivní dopravní politiky. *T & P. Telekomunikace a podnikání*. 2000, **4**(2), 34-35. ISSN 1211-5525.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Analytical Design of FIR Filters. *IEEE Transactions on Signal Processing*. 2000, **48**(9), 2705-2709. ISSN 1053-587X.

DAVÍDEK, V., M. LAIPERT a M. VLČEK. *Analogové a číslicové filtry*. Praha: České vysoké učení technické v Praze, 2000. ISBN 80-01-02178-5.

SVÍTEK, M., M. VLČEK a F. KOPECKÝ. Telematika jako nástroj provádění aktivní dopravní politiky. In: NOVOTNÝ, V. a V. SVOBODA, eds. *Věda o dopravě*. FD ČVUT Praha, Na Florenci 25, Praha, 1999-11-17. Praha: České vysoké učení technické v Praze, Fakulta dopravní, 1999. s. 12-18.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Analytical Design of FIR Filters. In: *IEEE Proceedings, ICECS'99*. The 6th IEEE International Conference on Electronics, Circuits and Systems, Paphos, 1999-09-05/1999-09-08. Piscataway: IEEE, 1999. s. 71-74. ISBN 0-7803-5682-9.

VLČEK, M., P. ZAHRADNÍK a R. UNBEHAUEN. Analytical Approach to the Design of FIR Filters. In: BECCARI, C., ed. *Proceedings of the European Conference on Circuit Theory on Design, ECCTD'99*. European Conference on Circuit Theory on Design, ECCTD'99, Stresa, 1999-08-29/1999-09-02. Torino: Levrotto & Bella Editrice, 1999. s. 209-212.



SVÍTEK, M., M. VLČEK a F. KOPECKÝ. Integrated Telematic System for European Transport Policy Making. In: *CZ-INTERMODAL 99 - Intermodální přeprava 21. století*. CZ-INTERMODAL 99-Intermodální doprava 21.století, Lázně Bohdaneč, 1999-11-08/1999-11-09. Pardubice: Univerzita Pardubice, 1999. s. 35-40.

ZAHRADNÍK, P., M. VLČEK a R. UNBEHAUEN. Almost Equiripple FIR Half-Band Filters. *IEEE Transactions on Circuits and Systems*. 1999, **46**(6), 744-748. ISSN 1057-7122.

VLČEK, M. a R. UNBEHAUEN. Zolotarev Polynomials and Optimal FIR Filters. *IEEE Transactions on Signal Processing*. 1999, **47**(3), 717-730. ISSN 1053-587X. DOI [10.1109/78.747778](https://doi.org/10.1109/78.747778)

LAIPERT, M. a M. VLČEK. Aproximace skupinového zpoždění. In: *Zborník z vedeckej konferencie Nové smery v spracovaní signalov IV*. Nové smery v spracovaní signalov IV, Liptovský Mikuláš, 1998-05-13/1998-05-14. Liptovský Mikuláš: Vojenská akadémia, 1998. s. 234-237. ISBN 80-8040-071-7.

VLČEK, M. Bilinear Transformation and Group Delay. In: *Proceedings of Radioelectronics 96*. Proc. of radioelektronika 96, Brno, Brno: VUT v Brně, 1996. s. 1-4.