## <u>Rudolf Scitovski</u>

## Professor, scitowsk@mathos.hr

University of Osijek, Department of Mathematics PhD University of Zagreb, 1984

<u>Research interest</u>: Applied and numerical mathematics, especially least squares and least absolute deviations problems and applications; Clustering; Global optimization

## Recent publications:

[1] A. Morales-Esteban, F.Martínez-Álvarez, S. Scitovski, R. Scitovski, A fast partitioning algorithm using adaptive Mahalanobis clustering with application to seismic zoning, **Computers & Geosciences**, 73(2014), 132–141

[2] R. Scitovski, T.Marošević, Multiple circle detection based on center-based clustering, **Pattern Recognition Letters** 52(2014), 9–16

[3] R. Scitovski, K. Sabo, Analysis of the k-means algorithm in the case of data points occurring on the border of two or more clusters, **Knowledge-Based Systems** 57(2014), 1-7

[4] I.Vidović, R. Scitovski, *Center-based clustering for line detection and application to crop rows detection*, **Computers and Electronics in Agriculture**, 109(2014), 212–220

[5] K. Sabo, R. Scitovski, *An approach to cluster separability in a partition*, **Information Sciences**, to appear

## Selected publications:

[1] R.Grbić, E.K.Nyarko, R. Scitovski, A modification of the DIRECT method for Lipschitz global optimization for a symmetric function, *Journal of Global Optimization*, *57(2013)*, 1193-1212
[2] R. Scitovski, S. Scitovski, A fast partitioning algorithm and its application to earthquake investigation, *Computers & Geosiences* 59(2013), 124 - 131

[3] K.Sabo, R. Scitovski, I.Vazler, One-dimensional center-based \$I\_1\$-clustering method, **Optimization Letters**, 7(2013), 5-22

[4] K.Sabo, R.Scitovski, I.Vazler, Searching for a best LAD-solution of an overdetermined system of linear equations motivated by searching for a best LAD-hyperplane on the basis of given data, **JOTA** (The Journal of Optimization Theory and Applications), 149(2011), 293-314.
[5] K.Sabo, R. Scitovski, I.Vazler, M.Zekić-Sušac, Mathematical models of natural gas consumption, **Energy Conversion and Management** 52(2011), 1721-1727