

A METHOD TO COMPARE TWO MULTIVARIABLE COMPLEXITY FUNCTIONS

Andrei-Horia MOGOS, Adina Magda FLOREA
University Politehnica of Bucharest, Romania
andrei.mogos@cs.pub.ro, adina.florea@cs.pub.ro

Abstract. The comparison of algorithms complexities can be reduced to the comparison of complexity functions. In two previous papers, we obtained some results related to the comparison of one-variable complexity functions using complexity classes. In this paper, we extend some of these results to multivariable complexity functions.

Keywords: multivariable complexity function, complexity class, functions comparison

References

- [1] D.E. Knuth, "Fundamental Algorithms", volume 1 of "The Art of Computer Programming", Third edition, Addison-Wesley, USA, 1997
- [2] T.H. Cormen, C.E. Leiserson, R.L. Rivest and C. Stein, "Introduction to Algorithms", Second edition, MIT Press, Cambridge Massachusetts, London England, USA, 2001
- [3] C.A. Giumale, "Introducere in Analiza Algoritmilor. Teorie si aplicatie" (Introduction to the Analysis of Algorithms. Theory and Application), Polirom, Bucharest, Romania, 2004
- [4] A.H. Mogos, "g(n) – Comparable Complexity Functions", Proceedings of CSCS – 16, the 16th International Conference on Control Systems and Computer Science, 22-25 May 2007, Bucharest, Romania, vol. 2, pp. 246-251
- [5] A.H. Mogos, A.M. Florea, "Comparing Two Complexity Functions using g(n)-Comparable Complexity Functions", Proceedings of CSCS – 17, the 17th International Conference on Control Systems and Computer Science, Bucharest, Romania, 26-29 May 2009, vol. 1, pp. 155-160