Vladimir Grupchev

Education

May 2015	**PhD in Computer Science and Engineering** Dissertation Title: Improvements on Scientific System Analysis *University of South Florida, Tampa, FL*
May 2007	**Master of Arts in Mathematics** *University of South Florida, Tampa, FL*
May 2005	**Bachelor of Science in Informatics** (Applied Math & Computer Science) *University of St. Cyril & Methodius, Skopje, Macedonia*

Professional Experience

Aug 2017 -	**Instructor I** *for the department of Mathematics* *University of South Florida, Tampa, FL*
Aug 2016 -	**Adjunct Professor** *for the department of Mathematics* *University of Tampa, Tampa, FL*
Aug 2016 - May 2017	**Full Time Temp Professor** *for the department of Mathematics* *Hillsborough Community College (DM), Tampa, FL*
Nov 2015 - Aug 2016	**Visiting Professor** *for the department of Computer Science* *International VISION University, Gostivar, Macedonia*
Jan 2016 - June 2016	**Visiting Professor** *for the department of Computer Science* *University of Information Science and Technology, Ohrid, Macedonia*
Jan 2015 - May 2015	**Adjunct Professor** *for the department of Mathematics* *Hillsborough Community College (DM & Brandon), Tampa, FL*
Jan 2015 - May 2015	**Adjunct Professor** *for the department of Mathematics* *University of Tampa, Tampa, FL*
Aug 2008 - May 2015	**Teaching Assistant** *University of South Florida - Computer Science and Engineering Department*
Aug 2007 - May 2008	**Adjunct Professor** *for the Department of Mathematics* *University of South Florida, Tampa FL*
Aug 2007 - May 2008	**Adjunct Professor** *for the Department of Mathematics* *Hillsborough Community College (DM & Plant City), Tampa FL*
Jan 2007 - May 2008	**Math Tutor** *University of South Florida - Naval ROTC, U.S. Army and Marines* *WizAnt - Math Tutoring Center*
Aug 2005 - May 2007	**Teaching Assistant** *University of South Florida - Department of Mathematics*

Classroom Experience

Courses Taught *(some of them multiple times/sections at USF, UT and HCC)*

- Intermediate Algebra (MAT 1033)
- Finite Mathematics (MGF 1106)
- Math for Liberal Arts I & II (MGF 1106/7)
- College Algebra (MAC 1105)
- Trigonometry (MAC 1114)
- Precalculus Algebra & Trig. (MAC 1147)
- Business Calculus (MAC 2233)
- Analysis of Algorithms (COT 4400)

Courses Assisted *(USF: Dept. of Mathematics & Dept. of Computer Science)*

- College Algebra (MAC 1105)
- Combinatorics & Graph Theory (MAT 5932/4930)
- Finite Math (MGF 1106)
- Life Science Calculus I (MAC 2241)
- Life Science Calculus II (MAC 2242)
- Calculus II (MAC 2312)
- Theory of Algorithms (COT6405)
- Analysis of Algorithms (COT4400)
- Automata Theory (COT 4210)
- Database Systems / Design (COP 4710)
- Computer Logic Design (CDA 3201L)
- Computers & Impact on Society (CGS 2034)

Courses Tutored *(USF Naval ROTC, U.S. Army and Marines)*

- Engineering Calculus I, II & III
- Probability Theory
- Analytical Geometry
- Differential Equations

Technical Skills

- MyMathLab, MathXL, Blackboard, Canvas
- MS Word, Excel, Power Point, Corel Draw
- Maple, Mathematica, Matlab
- Programming Languages: C, C++
- Operating Systems: Windows, Unix, Mac OS
- Computer Maintenance & Administration

Organizations (member)

- American Mathematical Society
- Mathematical Association of Two-Year Colleges

Publications

- Hadzieva, E., Grupcev, V., Petkoski, J. (2017). Extension and Software analysis of an Interactive Application for Transforming Fractals. *European Journal of Information Science and Technology*, submitted.
- Grupcev, V., Tu, Y., Fogarty, J., Pandit, S. (2015). Push-based System for Molecular Simulation Data Analysis. *IEEE International Conference on Big Data*, 1775 – 1784. doi:10.1109/BigData.2015.7363949
- Kumar, A., Grupcev, V., Yuan ,Y., Tu, Y., Huan, J., Shen, G. (2014). Computing Spatial Distance Histograms for Large Scientific Data Sets On-the-Fly. *IEEE Transactions on Knowledge and Data Engineering*, 26(10), 2410-2424. doi:10.1109/TKDE.2014.2298015
- Kumar, A., Grupcev, V., Berrada, M., Fogarty, J., Tu, Y., Zhu, X., Pandit, S., Xia, Y. (2014). DCMS: A data analytics and management system for molecular simulation. *Journal of Big Data*, 2(1):9. doi:10.1186/s40537-014-0009-5

- Grupcev, V., Yuan, Y., Tu, Y., Huang, J., Chen, S., Pandit, S., Weng, M. (2012). Approximate Algorithms for Computing Spatial Distance Histograms with Accuracy Guarantees. *IEEE Transactions on Knowledge and Data Engineering*, 25(9), 1982-1996. doi:10.1109/TKDE.2012.149
- Kumar, A., Grupcev, V., Yuan, Y., Tu, Y., Shen, G. (2012). Distance Histogram Computation Based on Spatiotemporal Uniformity in Scientific Data. *Proceedings of the 15th International Conference on Extending Database Technology*, 288-299. doi:10.1145/2247596.2247631
- Tu, Y., Chen, S., Pandit, S., Kumar, A., Grupcev, V. (2012). Efficient SDH computation in molecular simulations data. *Proceedings of the ACM Conference on Bioinformatics, Computational Biology and Biomedicine,* 527-529. doi:10.1145/2382936.2383010