Mikhail Tsitsvero

Education

11/2012–05/2016	Doctorate studies, Topic: "Localization properties of signals in dual domains" Department of Information Engineering, Electronics and Telecommunications, Sapienza University of Rome, Advisor: Prof. Dr. Sergio Barbarossa
09/2005–08/2010	Diploma in Physics with Distinction (equiv. MSc), Omsk State University, Omsk, Russia, Advisor: Assoc. Prof. Dr. T.K. Boletskaya
Languages:	Russian (native), English (fluent), Italian (fluent), Kazakh (basics), German (basics)

Scientific Interests

My scientific interests currently are in the area of signal processing of complex structured data. The structure could be represented by graph, simplicial complex or hypergraph. For efficient analysis of such data we aim to develop convenient methods for analysis that include sampling methods, novel uncertainty principles and new tools for analysis of topological and combinatorial features of data. My interests also include analysis of slowly-varying systems.

Work Experience

11/2012–current	Research Assistant, Sapienza University of Rome, DIET, Signal Processing for Communications Group
10/2011–11/2012	Software Developer, Two Pilots company
03/2011–12/2011	Research Assistant, Omsk Institute of Communications and Electronics, System-on-Chip Group
05/2009–11/2009	Assistant Engineer, Omsk State University Data Processing Center

Publications

Book Chapters:

- Barbarossa S., Tsitsvero M., *Eigenfunctions of underspread linear communication systems,* chapter in *Time-Frequency Analysis,* B. Boashash (Editor), Elsevier, 2015

Journals:

- Tsitsvero M., Barbarossa S., Di Lorenzo P., Signals on Graphs: Uncertainty Principle and Sampling, *IEEE Transactions on Signal Processing,*, 4845 - 4860

pp., Sept. 2016,
available online: arXiv preprint arXiv:1507.08822.

- Barbarossa S., Tsitsvero M., Eigenstructure of Underspread Linear Time-Varying Systems, in preparation.

Conference Papers:

- Barbarossa S., Tsitsvero M., An introduction to hypergraph signal processing, IEEE Int. Conf. on Acoustics, Speech and Signal Processing (ICASSP), March 2016.

- Tsitsvero M., Barbarossa S., On the degrees of freedom of signals on graphs, *23-rd European Signal Processing Conference (EUSIPCO)*, Sept. 2015.

Editorial Service

Served as a referee for

- IEEE Transactions on Signal Processing

- IEEE Transactions on Signal and Information Processing over Networks

Rome, 26 October, 2016