

# List of Publications

Roxana Alexandru

## Peer-reviewed Journals.....

1. **Roxana Alexandru** and Pier Luigi Dragotti, "Reconstructing classes of non-bandlimited signals from time encoded information", IEEE Transactions on Signal Processing. Available online at: <https://ieeexplore.ieee.org/document/8937791>
2. **Roxana Alexandru**, Thierry Blu and Pier Luigi Dragotti, "Diffusion SLAM", *under review* for IEEE Transactions on Signal Processing.

## Peer-reviewed Conferences.....

1. **Roxana Alexandru** and Pier Luigi Dragotti, "Time encoding and decoding of multidimensional signals with finite rate of innovation", *to appear* in Asilomar Conference on Signals, Systems, and Computers, 2021, USA.
2. **Roxana Alexandru**, Thierry Blu and Pier Luigi Dragotti, "Localising diffusion sources from samples taken along unknown parametric trajectories", European Signal Processing Conference (EUSIPCO), August 2021, Dublin, Ireland. *Conference proceedings available in August 2021*. PDF available here: <https://www.commsp.ee.ic.ac.uk/~ria/eusipco2021.pdf>
3. Marek Hilton, **Roxana Alexandru** and Pier Luigi Dragotti, "Guaranteed reconstruction from integrate-and-fire neurons with alpha synaptic activation", International Conference on Acoustics, Speech, and Signal Processing (ICASSP), June 2021, Toronto, Canada. Available online at: <https://ieeexplore.ieee.org/document/9414759>
4. Marek Hilton, **Roxana Alexandru** and Pier Luigi Dragotti, "Time Encoding Using the Hyperbolic Secant Kernel", European Signal Processing Conference (EUSIPCO), January 2021, Amsterdam, Holland. Available online at: <https://www.eurasip.org/Proceedings/Eusipco/Eusipco2020/pdfs/0002304.pdf>
5. **Roxana Alexandru**, Nguyen T. Thao, Dominik Rzepka and Pier Luigi Dragotti, "Sampling classes of non-bandlimited signals using integrate-and-fire devices: average case analysis", International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May 2020, Barcelona, Spain. Available at: <https://ieeexplore.ieee.org/document/9054012>  
Recorded presentation available here: <https://www.commsp.ee.ic.ac.uk/~ria/4102.mp4>
6. **Roxana Alexandru**, Thierry Blu and Pier Luigi Dragotti, "D-SLAM: Diffusion source localization and trajectory mapping", International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May 2020, Barcelona, Spain. Available online at: <https://ieeexplore.ieee.org/document/9053072>  
Recorded presentation available here: <https://www.commsp.ee.ic.ac.uk/~ria/4174.mp4>.
7. **Roxana Alexandru** and Pier Luigi Dragotti, "Diffusion source detection in a network using partial observations", SPIE Wavelets and Sparsity, August 2019, San Diego, California. Available online at: <https://doi.org/10.1117/12.2529418>
8. **Roxana Alexandru** and Pier Luigi Dragotti, "Time encoding and perfect recovery of non-bandlimited signals with an integrate-and-fire system", International Conference on Sampling Theory and Applications (SampTA), July 2019, Bordeaux, France. Available online at: <https://sampta2019.sciencesconf.org/269796/document>
9. **Roxana Alexandru** and Pier Luigi Dragotti, "Time-based sampling and reconstruction of non-bandlimited signals", International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May 2019, Brighton, United Kingdom. Available online at: <https://ieeexplore.ieee.org/document/8682626>
10. **Roxana Alexandru** and Pier Luigi Dragotti, "Rumour Source Detection in Social Networks using Partial Observations", Global Conference on Signal and Information Processing (GlobalSIP), November 2018, Anaheim, California. Available online at: <https://ieeexplore.ieee.org/document/8646695>
11. **Roxana Alexandru**, Pranav Malhotra, Stephanie Reynolds and Pier Luigi Dragotti, "Estimating the Topology of Neural Networks from Distributed Observations", European Signal Processing Conference (EUSIPCO), September 2018, Rome, Italy. Available online at: <https://ieeexplore.ieee.org/document/8553016>

## Conference Abstracts.....

1. **Roxana Alexandru**, Pranav Malhotra, Stephanie Reynolds and Pier Luigi Dragotti, "Estimating the Topology of Neural Networks from Distributed Observations", Graph Signal Processing Workshop, June 2018, Lausanne, Switzerland. Poster available here:  
[https://www.commsp.ee.ic.ac.uk/~ria/poster\\_gsp2018.pdf](https://www.commsp.ee.ic.ac.uk/~ria/poster_gsp2018.pdf)

## Invited Book Chapters.....

1. **Roxana Alexandru** and Pier Luigi Dragotti, "Epidemic source detection in complex networks". In Chee Wei Tan, editors, *Online Social Networks: Perspectives, Applications and Developments*, 2020. Available online at:  
[www.novapublishers.com/shop/online-social-networks-perspectives-applications-and-developments/](http://www.novapublishers.com/shop/online-social-networks-perspectives-applications-and-developments/).

## Invited Talks.....

1. University of Essex, Department of Computer Science and Electronic Engineering, "Time encoding using integrate-and-fire devices", Colchester, United Kingdom (December 4, 2019). More details available here:  
<https://www.essex.ac.uk/events/2019/12/04/spike-based-signal-processing>