**A study of non-linear manifold feature extraction in spike sorting**

Eugen-Richard Ardelean1,\*, Raluca Laura Portase1

1Department of Computer Science, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

**\* Corresponding authors:** [ardeleaneugenrichard@gmail.com](mailto:ardeleaneugenrichard@gmail.com)

**ORCID Author IDs:**

Eugen-Richard Ardelean: 0000-0002-0098-4228

Raluca Laura Portase: 0000-0002-8985-4728

# Declarations

## Availability of data and materials

The datasets used in this work are openly available and can be found at:

* Synthetic datasets (15): <https://spikeforest.flatironinstitute.org/studyset/SYNTH_MONOTRODE> or <http://bioweb.me/CPGJNM2012-dataset> or <https://www.kaggle.com/datasets/ardeleanrichard/simulationsdataset/data>
* Real datasets (13,14): <https://spikeforest.flatironinstitute.org/study/paired_kampff> or <https://crcns.org/data-sets/methods/spe-1/about-spe-1>

The code that supports the findings of this work was written in Python and is openly available at: <https://github.com/ArdeleanRichard/Nonlinear-Feature-Extraction-in-SpikeSorting>

## Competing Interests

The authors have declared that no competing interests exist.

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## Authors’ contributions

Conceptualization, E.-R.A. and R.L.P.; methodology, E.-R.A. and R.L.P.; software, E.-R.A. and R.L.P.; validation, E.-R.A. and R.L.P.; formal analysis, E.-R.A. and R.L.P.; investigation, E.-R.A. and R.L.P.; data curation, E.-R.A. and R.L.P.; writing—original draft preparation, E.-R.A. and R.L.P.; writing—review and editing, E.-R.A. and R.L.P.; visualization, E.-R.A. and R.L.P.; supervision, E.-R.A. and R.L.P.; project administration, E.-R.A. and R.L.P. All authors have read and agreed to the published version of the manuscript.

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