

Accepted Manuscript

Title: Gaussian process regression for automated signal tracking in step-wise perturbed Nuclear Magnetic Resonance spectra

Author: Maciej Zieba Piotr Klukowski Adam Gonczarek
Yaroslav Nikolaev Michal J. Walczak



PII: S1568-4946(18)30177-7
DOI: <https://doi.org/doi:10.1016/j.asoc.2018.03.046>
Reference: ASOC 4795

To appear in: *Applied Soft Computing*

Received date: 11-9-2017
Revised date: 17-3-2018
Accepted date: 25-3-2018

Please cite this article as: Maciej Zieba, Piotr Klukowski, Adam Gonczarek, Yaroslav Nikolaev, Michal J. Walczak, Gaussian process regression for automated signal tracking in step-wise perturbed Nuclear Magnetic Resonance spectra, *Applied Soft Computing Journal* (2018), <https://doi.org/10.1016/j.asoc.2018.03.046>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Novel tracking method of signals in NMR spectra
- Modelling trajectories with Gaussian Process Regression model
- First time supervised machine learning model used for this tracking problem
- Method handles complex data problems: missing signals, noise and crossing trajectories
- Results of experiments show the benefits of proposed solution comparing to the reference distance-based approach.

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/6903618>

Download Persian Version:

<https://daneshyari.com/article/6903618>

[Daneshyari.com](https://daneshyari.com)