Dr Debora Correa

Dr Debora Correa

Chief Investigator

Theme 2

Dr Débora Corrêa is an enthusiast of computer science and data science; she has worked in data science on time series analysis, machine learning, computer vision, neural networks and complex networks. Débora is motivated by application-driven problems where the interplay between theory and application enriches both and results in a proper data analysis that contributes to the real world. Débora has explored solutions in bioengineering and biomedical signals, music, audio signals and diverse engineering systems. In addition, her research allows her to work and build collaborations with many researchers across different fields, including the opportunity to supervise postdoctoral, undergraduate, master and PhD students.

Publications

- Selecting embedding delays: An overview of embedding techniques and a new method using persistent homology (...) —
  ## Journal Article

  ### Dr Debora Correa

  Authors: Eugene Tan, Shannon Alga, Débora Corrêa, Michael Small, Thomas Stemler and David Walker1
  2023-03-01

- A Novel Approach to Time Series Complexity via Reservoir Computing (...) —
  ## Conference Publishing

  ### Braden Thorne

  Authors: Braden Thorne, Thomas Jüngling , Michael Small , Debora Correa , and Ayham Zaitouny
  2022-12-07

- Reservoir time series analysis: Using the response of complex dynamical systems as a universal indicator of change (...) —
  ## Journal Article

  ### Braden Thorne

  Authors: Thorne, Braden Jüngling, Thomas Small, Michael Corrêa, Débora Zaitouny, Ayham
  2022-02-10

- Managing streamed sensor data for mobile equipment prognostics. (...) —
  ## Journal Article

  ### Dr Debora Correa

  Authors: Griffiths, T., Corrêa, D., Hodkiewicz, M., & Polpo, A. (2022). Managing streamed sensor data for mobile equipment prognostics. Data-Centric Engineering, 3, E11. doi:10.1017/dce.2022.4
  2022-04-07

- Data-Driven Approach for Labelling Process Plant Event Data (...) —
  ## Journal Article

  ### Dr Debora Correa

  Authors: Débora Corrêa, Adriano Polpo, Michael Small, Shreyas Srikanth, Kylie Hollins, Melinda Hodkiewicz
  2022-01-24

- On detecting dynamical regime change using a transformation cost metric between persistent homology diagrams. (...) —
  ## Journal Article

  ### Dr Debora Correa

Research Gate

Authors: Dee Algar, S., Corrêa, D.C. and Walker, D.M
2021-12-17
- Deforestation-induced surface warming is influenced by the fragmentation and spatial extent of forest loss in Maritime Southeast Asia (...) —
Journal Article

Dr Debora Correa

Authors: Crompton, O., Corrêa, D., Duncan, J. and Thompson, S.,
2021-09-03
- Grading your models: Assessing dynamics learning of models using persistent homology (...) —
Journal Article

Dr Debora Correa

Authors: Eugene Tan, Débora Corrêa, Thomas Stemler, Michael Small
2021-12-01
- On using the modularity of recurrence network communities to detect change-point behaviour (...) —
Journal Article

Dr Ayham Zaitouny

Authors: David M. Walker, Ayham Zaitouny, Debora C. Correa*
2021-03-01
- Quantifying the generalization capacity of Markov models for melody prediction (...) —
Journal Article

Dr Debora Correa

Authors: Corrêa, D. C., Jüngling, T., & Small, M.,
2020-02-17
- Constrained Markov Order Surrogates (...) —
Journal Article

Dr Debora Correa

Authors: Corrêa, D. C., Moore, J. M., Jüngling, T., & Small, M.
2020-02-28
- Reconstruction of Complex Dynamical Systems from Time Series using Reservoir Computing (...) —
Journal Article

Prof Michael Small

Authors: Jüngling, T., Lymburn, T., Stemler, T., Corrêa, D., Walker, D. & Small, M.,
2019-05-01

Presentations

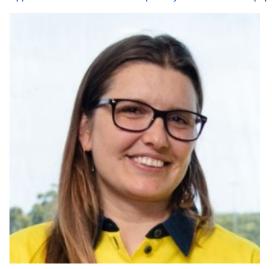- Master Class - Complex Time Series Modelling (...) —

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Theme 2
2021-04-15

- Applied Mathematics and Complex Systems Seminars (...) —

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Theme 2
2020-08-13

- Managing Streamed Sensor Data for Mobile Equipment Failure Prediction (...) —
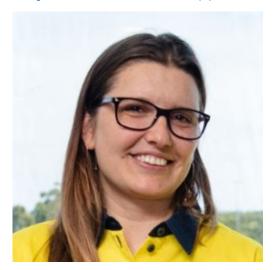
[Dr Debora Correa](#)

Chief Investigator

Theme 2
2020-09-08

- [Intelligent Maintenance Conference 2020](#) (...) —

[Dr Debora Correa](#)

Chief Investigator

Theme 2
2020-09-08

Awards and Prizes

- [ARC Discovery Grant in the 2020 round.](#) (...)
- [National Geographic Society - AI for Earth Innovation Grant](#) (...)

Tools

Content by label

There is no content with the specified labels