# Search for Academic Sources related to my Research Question

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**Research question**

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| How may mixed time-series data be decomposed and recomposed in novel and meaningful ways using conceptors? |

**Databases**

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| SmartCat, WoS, Scopus, ACM |

**Known items**

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| Jaeger, H. (2017). Controlling Recurrent Neural Networks by Conceptors. *ArXiv:1403.3369 [Cs]*. [http://arxiv.org/abs/1403.3369](http://arxiv.org/abs/1403.3369" \t "_blank)  (The paper by my supervisor that presents conceptors in great detail and did so for the first time)  Mitchell, M. (2021). Abstraction and Analogy-Making in Artificial Intelligence. *Annals of the New York Academy of Sciences*, *1505*(1), 79–101. [https://doi.org/10.1111/nyas.14619](https://doi.org/10.1111/nyas.14619" \t "_blank)  (review of computational methods for creative analogies)  Ha, D., & Eck, D. (2017). A Neural Representation of Sketch Drawings. *ArXiv:1704.03477 [Cs, Stat]*. [http://arxiv.org/abs/1704.03477](http://arxiv.org/abs/1704.03477" \t "_blank)  (Work that I try to improve on)  Lukoševičius, M. (2012). A Practical Guide to Applying Echo State Networks. In G. Montavon, G. B. Orr, & K.-R. Müller (Eds.), *Neural Networks: Tricks of the Trade* (Vol. 7700, pp. 659–686). Springer Berlin Heidelberg. [https://doi.org/10.1007/978-3-642-35289-8\_36](https://doi.org/10.1007/978-3-642-35289-8_36" \t "_blank)  (Good technical guide) |

**Search terms (use thesaurus)**

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| Conceptors  Conceptor  Computational creativity  Time-series decomposition  Recurrent neural networks  RNN  Omniglot  Analogy-making  Analogies  Reservoir  ESN  Echo state network  Generalization  K-means  Clustering  Digit |

**Search string**

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| **Basic** (217 WoS)  Neural Network AND time-series AND Segmentation  **Advanced** (726 WoS**)**  TS=((RNN OR “Recurrent Neural Network” OR Reservoir\* OR ESN OR “Echo-state Network” OR Conceptors OR Conceptor) AND (decomposition OR segmentation OR recomposition OR generalization OR Analogies OR “Computational Creativity”) AND (Signal OR “Time-series”) |

**Sources found**

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| **First result WoS**  DeePr-ESN: A deep projection-encoding echo-state network  By: Ma, Qianli; Shen, Lifeng; Cottrell, Garrison W.  INFORMATION SCIENCES Volume: 511 Pages: 152-171 Published: FEB 2020  **Sorted by times cited (WoS)**  Deep learning and its applications to machine health monitoring  By: Zhao, Rui; Yan Ruqiang; Chen, Zhenghua; Mao, Kezhi; Wanh, Peng; Gao, Robert X.  MECHANICAL SYSTEMS AND SIGNAL PROCESSING Volume: 115 Pages: 213-237 Published: JAN 2019  **Cited references by Herber Jaeger sorted by times cited (Scopus)**  Deep Learning in neural networks: An overview  NEURAL NETWORKS Volume: 61 Pages: 85-117 Published: JAN 2015  **Search by the Author Herbert Jaeger by Date and choosing the paper that seemed most relevant to my research topic (on Scopus, since the author was not found on WoS)**  Using conceptors to manage neural long-term memories for temporal patterns  JOURNAL OF MACHINE LEARNING RESEARCH Volume: 18 Pages: 387-429 Published: MAR 2017  **Filter on review (WoS)**  Hybrid structures in time series modeling and forecasting: A reviewBy: Hepbasli, Arif; Alsuhaibani, Zeyad  ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE Volume: 86 Pages: 88-106 Published: NOV 2019 |