

Published Paper List

Jianting CAO

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2021

Journal Articles

- (308) Wenping Luo, Jianting Cao, Dongying Ju, and Kousuke Ishikawa: “Experimental validation of intelligent recognition of eye movements in the application of autonomous vehicle driving.” *International Journal of Biomedical Soft Computing and Human Sciences (IJBSCHS)* (Under review)
- (307) Xusheng Li, Dongying Ju, Jianting Cao, Sirui Wang, Yong Chen, Fangbo He and Hui Li: “Effect of Transformation Plasticity on Gear Distortion and Residual Stresses in Carburizing Quenching Simulation.” (In press)
- (306) Wenping Luo, Jianting Cao, Kousuke Ishikawa and Dongying Ju: “A Human-Computer Control System Based on Intelligent Recognition of Eye Movements and Its Application in Wheelchair Driving.” *Multimodal Technol. Interact.* 2021, 5(9), 50. <https://doi.org/10.3390/mti5090050>
- (305) Qipeng Chen and Jianting Cao: “Low Tensor-Train Rank with Total Variation for Magnetic Resonance Imaging Reconstruction.” *Science China Technological Sciences, Special issue: Tensor Methods in Machine Learning*, (2021). <https://doi.org/10.1007/s11431-020-1851-5>
- (304) Linfeng Sui, Xuyang Zhao, Qibin Zhao, Toshihisa Tanaka and Jianting Cao: “Hybrid Convolutional Neural Network for Localization of Epileptic Focus Based on iEEG.”, *Neural Plasticity*, vol. 2021, Article ID 6644365, 9 pages, 2021. <https://doi.org/10.1155/2021/6644365>
- (303) Li Zhu, Changle Zhou, Fabien Lotte, Junhua Li, Jianting Cao and Andrzej Cichocki: “Power spectrum and connectivity analysis for detecting human brain death.” *Biomedical Signal Processing and Control* (In press).

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- (302) Xuyang Zhao, Jordi Sole-Casals, Qibin Zhao, Jianting Cao and Toshihisa Tanaka: “Multi-feature Fusion for Epileptic Focus Localization Based on Tensor Representation.” *13th Asia Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, 2021. (In press)
- (301) Mo Xia, Linfeng Sui, Xuyang Zhao, Toshihisa Tanaka, Jianting Cao: “Convolution Neural Network Recognition of Epileptic Foci Based on Composite Signal Processing of Electroencephalograph Data.” *Procedia Computer Science* 192C (2021) pp. 688-696. <https://doi.org/10.1016/j.procs.2021.08.071>

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- (300) Rui Deng, Boning Li, and Jianting Cao: “機械学習に基づく睡眠段階の分類に関する研究” 埼玉工業大学, 第19回若手研究フォーラム。(In press)

- (299) Pengju Zhang, and Jianting Cao: “DenseNet に基づいた COVID-19 CT 画像の自動識別” 埼玉工業大学, 第 19 回 若手研究フォーラム。(In press)
- (298) Mo Xia, Jianting Cao: “脳波の複合信号処理と畳み込みニューラルネットワークに基づく癲癇焦点チャンネル信号分類” 埼玉工業大学, 第 19 回 若手研究フォーラム,
- (297) Honghao Jia, Jianting Cao and Dong-Ying Ju: “バックプロパゲーションアルゴリズムに基づく真空浸炭プロセス予測の最適化” 埼玉工業大学, 第 19 回 若手研究フォーラム。(In press)
- (296) Yihong Wu, Boning Li and Jianting Cao: “実時間ロボット制御のための脳・コンピュータインタフェースシステム” 埼玉工業大学, 第 19 回 若手研究フォーラム。(In press)
- (295) Rong Su, and Jianting Cao: “ロバスト主成分分析に基づく画像復元のための新しいアルゴリズム” 埼玉工業大学, 第 19 回 若手研究フォーラム。(In press)
- (294) Yingbo Xu and Jianting Cao: “ノンローカルネットワークを用いた手まねの画像分類” 埼玉工業大学, 第 19 回 若手研究フォーラム。(In press)

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- (293) Haijian Wang, Haiwei Wang, Takashi Kumazawa, Dongying Ju, and Jianting Cao: “Effect of casting speed on microstructure, corrosion behaviour and in vivo bone reaction of Mg-rare earth alloys.” *SCIENCE CHINA Technological Sciences* SCTS-2020-0689, June 2020 (In press).
- (292) Xuanyu Jin, Jiajia Tang, Xianghao Kong, Yong Peng, Jianting Cao, Qibin Zhao, Wanzeng Kong: “CTNN: A Convolutional Tensor-Train Neural Network For Multi-task Brainprint Recognition.” *IEEE Transactions on Neural Systems and Rehabilitation Engineering: a Publication of the IEEE Engineering in Medicine and Biology Society*, 2020, DOI: 10.1109/TNSRE.2020.3035786

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- (291) Xuyang Zhao, Jordi Solé-Casals, Binghua Li, Zihao Huang, Andong Wang, Jianting Cao, Toshihisa Tanaka and Qibin Zhao: “Classification of Epileptic iEEG signals by CNN and Data Augmentation”, *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, 2020, DOI: 10.1109/ICASSP40776.2020.9052948
- (290) Xuyang Zhao, Linfeng Sui, Toshihisa Tanaka, Jianting Cao and Qibin Zhao: “Epileptic Focus Localization Based on iEEG Plot Images by Using Convolutional Neural Network”, *EPiC Series in Computing*, 2020, 70: 173-181., DOI: <https://doi.org/10.29007/9jmg>.

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- (289) Honghao Jia and Jianting Cao: “LDA トピックモデルと畳み込みニューラルネットワークに基づくトピックローラ,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp. 156-157, August 2020
- (288) Rong Su and Jianting Cao: “独立成分解析による信号分離,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp. 152-154, August 2020
- (287) Yihong Wu and Jianting Cao: “P300 Signal Classification by Machine Learning for BCI system,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp. 150-151, August 2020
- (286) Yingbo Xu and Jianting Cao: “深層学習に基づく表情認識システム,” 埼玉工業大学, 第 18

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- (285) Mo Xia, Linfeng Sui, Xuyang Zhao and Jianting Cao: “畳み込みニューラルネットワークを用いた連続ウェーブレット変換処理のてんかん脳波の分類,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp. 146-147, August 2020
- (284) Linfeng Sui, Xuyang Zhao and Jianting Cao: “脳波に基づいて混合畳み込みニューラルネットワークを用いた癲癇焦点推定,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp.80-81, August 2020
- (283) Haonan Du and Jianting Cao: “経験的モード分解に基づく患者の脳波エネルギー解析,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp.78-79, August 2020
- (282) Boning Li and Jianting Cao: “機械学習に基づいた話し中の脳波の識別に関する研究,” 埼玉工業大学, 第 18 回 若手研究フォーラム, ISSN: 1880-392X, pp.76-77, August 2020

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- (281) Li Zhu, Gaochao Cui, Jianting Cao, Andrzej Cichocki, Jianhai Zhang, Changle Zhou: “A hybrid system for distinction of brain death and coma using diverse EEG features.” *Sensors*, Vol.19, No.6, pp.1342-1357, 2019, DOI: <https://doi.org/10.3390/s19061342>.
- (280) Cui Gaochao, Zhu Li, Gui Lihua, Zhao Qibin, Zhang Jianhai, Cao Jianting: “Multidimensional clinical data denosing via Bayesian CP factorization.” *Science China (Technological Sciences)*, Vol. 63, pp. 249-254, 2019, DOI: <https://doi.org/10.1007/s11431-018-9493-9>
- (279) Linfeng Sui, Xuyang Zhao, Jianting Cao and Qibin Zhao: “Localization of Epileptic Foci from iEEG via Mixed Convolutional Neural Network”, *International Journal of Latest Trends in Engineering and Technology (IJLTET)*, Vol. 14, pp. 008-013, 2019, DOI: <http://dx.doi.org/10.21172/1.144.03> https://www.ijltet.org/journal_details.php?id=951&j_id=4842
- (278) Xuyang Zhao, Lihua Gui, Jianting Cao and Qibin Zhao: “Epileptic Focus Localization Based on Entropy and Convolutional Neural Network,” *International Journal of Latest Trends in Engineering and Technology (IJLTET)*, Vol. 14, pp. 014-017, 2019, DOI: <http://dx.doi.org/10.21172/1.144.04> https://www.ijltet.org/journal_details.php?id=951&j_id=4843
- (277) Longhao Yuan, Chao Li, Jianting Cao and Qibin Zhao: “Rank Minimization on Tensor Ring: An Efficient Approach for Tensor Decomposition and Completion”, *Machine Learning*, ISSN 0885-6125, Vol.109, pp.603-622, 2019, DOI:<https://doi.org/10.1007/s10994-019-05846-7>
- (276) Longhao Yuan, Jianting Cao and Qibin Zhao: “Tensor Ring Decomposition for Visual Data Denoising via Tensor Random Projection”, *International Journal of Latest Trends in Engineering and Technology (IJLTET)*, Vol. 13, No. 2, 2019, DOI: <http://dx.doi.org/10.21172/1.132.19>. https://www.ijltet.org/journal_details.php?id=945&j_id=4791

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- (275) Boning Li, Xuyang Zhao, Qibin Zhao, Toshihisa Tanaka, and Jianting Cao: "A One-Dimensional Convolutional Neural Network Model for Automated Localization of Epileptic Foci," 2019 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), Lanzhou, China, 2019, pp. 741-744,

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- (274) Yao Miao, Toshihisa Tanaka, Shintaro Ito, and Jianting Cao: “Seizure Detection of Epileptic EEG Based on Multiple Phase-Amplitude Coupling Methods,” *The 7th International Congress on Cognitive Neurodynamics (ICCN)*, September 2019, Alghero, Italy. (In press)
- (273) Linfeng Sui, Xuyang Zhao, Qibin Zhao, Toshihisa Tanaka and **Jianting Cao**: “Localization of Epileptic Foci by Using Convolutional Neural Network Based on iEEG”, *IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI2019)*, May 2019, Crete, Greece, pp. 331-339, DOI: https://doi.org/10.1007/978-3-030-19823-7_27.
- (272) Qipeng Chen, Longhao Yuan, Yao Miao, Qibin Zhao, Toshihisa Tanaka and **Jianting Cao**: “Quasi-Brain-Death EEG Diagnosis Based on Tensor Train Decomposition”, *International Symposium on Neural Networks (ISSN2019)*, July 2019, Moscow, Russia, pp. 501-511, DOI: https://doi.org/10.1007/978-3-030-22808-8_49
- (271) Longhao Yuan, Chao Li, **Jianting Cao**, Qibin Zhao: “Randomized Tensor Ring Decomposition and Its Application to Large-scale Data Reconstruction,” *2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, May 2019, Brighton, UK, DOI: <https://doi.org/10.1109/ICASSP.2019.8682197>
- (270) Longhao Yuan, Chao Li, Danilo Mandic, Jianting Cao and Qibin Zhao: “Tensor Ring Decomposition with Rank Minimization on Latent Space: An Efficient Approach for Tensor Completion,” *Proceedings of the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-2019)*, Vol. 33, pp. 9151-9158, January 2019, Hawaii, USA, DOI: <https://doi.org/10.1609/aaai.v33i01.33019151>.

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- (269) Linfeng Sui and Jianting Cao: “畳み込みニューラルネットワークを用いた BCI システムにおける脳波成分の分類,” 埼玉工業大学, 第 17 回 若手研究フォーラム, ISSN: 1880-392X, August 2019
- (268) Mo Xia, Gaochao Cui, Linfeng Sui and Jianting Cao: “Comparison of Dialing Systems Based on SSVEP and P300,” *APSIPA BioSiPS Workshop*, August 2019, Manila, Philipine
- (267) Yihong Wu, Xuyang Zhao, Lihua Gui and Jianting Cao: “Quasi-Brain-Death EEG Classification using Machine Learning Technique,” *APSIPA BioSiPS Workshop*, August 2019, Manila, Philippine

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- (266) Longhao Yuan, Jianting Cao, Lihua Gui, Qibin Zhao: “High-dimension Tensor Completion via Gradient-based Optimization Under Tensor-train Format.” *Signal Processing: Image Communication: Special Issue on Tensor Image Processing*, Springer, vol. 73, pp. 53-61, 2018, DOI: <https://doi.org/10.1016/j.image.2018.11.012>.
- (265) Lihua Gui, Xuyang Zhao, Qibin Zhao and Jianting Cao: “Non-local Image Denoising by Using Bayesian Low-rank Tensor Factorization on High-order Patches,” *International Journal of*

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- (264) Lihua Gui, Xuyang Zhao, Qibin Zhao and Jianting Cao: "Image and Video Completion by Using Bayesian Tensor Decomposition," *International Journal of Computer Science Issues*, Vol. 15, No.5, 2018, DOI: <https://doi.org/10.5281/zenodo.1467644>
- (263) Yao Miao and Jianting Cao: "Descriptive Statistical Analysis Based on Patients' EEG Energy in Coma and Quasi-brain-death State," *International Journal of Computers & Technology*, ISSN 2277-3061, Vol. 17, No. 1, pp. 7140-7145, March 2018, DOI: <https://doi.org/10.24297/ijct.v17i1.7171>.

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- (261) Jianhai Zhang, Na Zhang, Jianting Cao, Yao Miao, Li Zhu, Wanzeng Kong: "Analysis of Deep Coma and Brain Death Based on Phase Synchronization with EEG," *the 14th IEEE International Conference on Signal Processing (ICSP)*, August 2018, Beijing, China, DOI: <https://doi.org/10.1109/ICSP.2018.8652349>.
- (260) Yao Miao, Jianting Cao: "Patients' EEG Analysis Based on Multi-indicator Dynamic Analysis Measure for Supporting Brain Death Determination," *International Symposium on Neural Networks*, Lecture Notes in Computer Science, Springer, Cham, Vol. 10878, pp. 824-833, 2018, DOI: https://doi.org/10.1007/978-3-319-92537-0_93.
- (259) Xingwei Cao, Xuyang Zhao and Qibin Zhao: "Tensorizing Generative Adversarial Nets," *International Conference on Consumer Electronics Asia (ICCE-Asia)*, Jeju, Korea, 2018, DOI: [10.1109/ICCE-ASIA.2018.8552122](https://doi.org/10.1109/ICCE-ASIA.2018.8552122).
- (258) Xuyang Zhao, Gaochao Cui, Longhao Yuan and Jianting Cao: "A Hybrid Brain Computer Interface Based on Audiovisual Stimuli P300," *International Conference on Consumer Electronics Asia (ICCE-Asia)*, Jeju, Korea, 2018, DOI: <https://doi.org/10.1109/ICCE-ASIA.2018.8552155>.
- (257) Xuyang Zhao, Qibin Zhao, Toshihisa Tanaka, Jianting Cao, Wanzeng Kong, Hidenori Sugano and Noboru Yoshida: "Detection of Epileptic Foci Based on Interictal iEEG by Using Convolutional Neural Network," *The 23rd International Conference on Digital Signal Processing (DSP)*, Shanghai, China, 2018, DOI: [http://doi.org/10.1109/ICDSP.2018.8631885](https://doi.org/10.1109/ICDSP.2018.8631885)
- (256) Longhao Yuan, Jianting Cao, Xuyang Zhao, Qiang Wu, Qibin Zhao: "Higher-dimension Tensor Completion via Low-rank Tensor Ring Decomposition," *Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, November 2018, Hawaii, USA, DOI: <https://doi.org/10.23919/APSIPA.2018.8659708>
- (255) Xuyang Zhao, Toshihisa Tanaka, Wanzeng Kong, Qibin Zhao, Jianting Cao, Hidenori Sugano and Yoshida, Noboru: "Epileptic Focus Localization Based on iEEG by Using Positive Unlabeled (PU) Learning," *Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, November 2018, Hawaii, USA, DOI: [10.23919/APSIPA.2018.8659747](https://doi.org/10.23919/APSIPA.2018.8659747)

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- (253) Gaochao Cui, Li Zhu, Qibin Zhao, Jianting Cao and Andrzej Cichocki: "A graph theory analysis on distinguishing EEG-based brain death and coma," *the 24th International Conference on Neural Information Processing*, Lecture Notes in Computer Science, Springer, Vol. 10637, pp. 589-595, Guangzhou, China, DOI: 10.1007/978-3-319-70093-9_62, Nov. 2017.
- (252) Longhao Yuan, Qibin Zhao and Jianting Cao: "Completion of High Order Tensor Data with Missing Entries via Tensor-train Decomposition," *the 24th International Conference on Neural Information Processing*, Lecture Notes in Computer Science, Springer, pp. 222-229, Guangzhou, China, DOI: 10.1007/978-3-319-70087-8_24, November 2017.
- (251) L. Gui, Q. Zhao, and J. Cao: "Brain Image completion by bayesian tensor decomposition," *International Conference on Digital Signal Processing*, London, England, August, 2017.
- (250) Qingyao Ni, Jianting Cao: "A Real-time Mobile Phone Dialing System using OpenBCI Device," *The 8th International IEEE EMBS Conference On Neural Engineering*, Shanghai, China, May 2017.
- (249) Longhao Yuan and Jianting Cao: "Patients' EEG Data Analysis via Spectrogram Image with a Convolution Neural Network," *International Conference on Intelligent Decision Technologies*, Springer, Cham, pp. 13-21, Vilamoura, Portugal, DOI: 10.1007/978-3-319-59421-7_2, May 2017
- (248) Yao Miao and Jianting Cao: "Comparison of EMD, MEMD and 2T-EMD by analyzing standard artificial signals and EEG," *2017 International Joint Conference on Neural Networks*, IEEE press, pp. 1367-1371, Anchorage, AK, USA, DOI: [10.1109/IJCNN.2017.7966012](https://doi.org/10.1109/IJCNN.2017.7966012), May 2017.

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- (246) Longhao Yuan, Qibin Zhao and Jianting Cao: "Color Image Recovery via Tensor Completion: Tensor Train Weighted Optimization," *2017 International Workshop on Neurodynamics and Its Applications*, Nagano, Japan, September 2017.
- (245) Lihua Gui, Qibin Zhao and Jianting Cao: "Brain Image Completion by Bayesian Tensor Decomposition," *2017 International Workshop on Neurodynamics and Its Applications*, Nagano, Japan, September 2017.
- (244) Yao Miao, and Jianting Cao: "EEG analysis based on energy and complexity for supporting Brain Death Determination," *2017 International Workshop on Neurodynamics and Its Applications*, Nagano, Japan, September 2017.
- (243) Gaochao Cui, Li Zhu, Qibin Zhao, Jianting Cao and Andrzej Cichocki: "A graph theory analysis on distinguishing EEG-based brain and coma," *2017 International Workshop on Neurodynamics and Its Applications*, Nagano, Japan, September 2017.

- (242) Qingyao Ni and Jianting Cao: “OpenBCI を利用したリアルタイムの携帯システムの試作,” 埼玉工業大学, 第 15 回 若手研究フォーラム, pp. 118-119, ISSN: 1880-392X, July 2017

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- (240) Gaochao Cui, Li Zhu, Dongsheng Wang and Jianting Cao: “An intelligent data processing method for residential load analysis,” *International Journal of Computer Science Issues*, ISSN: 1694-0784, Vol. 13, No. 4, pp. 32-40, July 2016.

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