

# Jie WEN, Ph.D

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## Biography

I received the B.S. degree in Automation and the Ph.D. degree in Control Science and Engineering from [University of Science and Technology of China](#), Hefei, Anhui, China, in 2010 and 2015, respectively. From June 2015 to June 2017, I was a Lecturer with [School of Computer Science and Control Engineering, North University of China](#). Since July 2017, I am a Lecturer with [School of Electrical and Control Engineering, North University of China](#). My current research focuses on Quantum Systems Control, Prognostic and Health Management.

## Education

Ph.D.(Supervised by [Prof. Shuang CONG](#)), 2010.9-2015.6  
[Department of Automation, University of Science and Technology of China](#)

B.S. (Supervised by [Prof. Shuang CONG](#)), 2006.9-2010.7  
[Department of Automation, University of Science and Technology of China](#)

## Working Experience

Lecturer, Jul. 2017–present.  
[School of Electrical and Control Engineering, North University of China](#)

Lecturer, Jun. 2015– Jun. 2017.  
[School of Computer Science and Control Engineering, North University of China](#)

## Grants

1. Scientific and Technological Innovation Programs of Higher Education Institutions in Shanxi, Project 2019L0583, Principal investigator, 2019.07-2021.06, Amount granted ¥20,000.
2. Natural Science Foundation of Shanxi Province, Project 201801D221208, Principal investigator, 2018.12-2020.12, Amount granted ¥30,000.
3. Science Foundation of North University of China, Project 2017025, Principal investigator, 2017.01-2019.12, Amount granted ¥30,000.
4. North University of China, Start-up Grant, Project 20150057, Principal investigator, 2015.09-2018.06, Amount granted ¥200,000.

## Publications

### Submitted Papers

1. **Jie WEN\***, Yuanhao SHI, Xiaoqiong PANG, Jianfang JIA and Jianchao ZENG\*, Exponential Stabilization of Stochastic Time-delay Quantum Systems Based on Continuous Measurement Feedback, *IEEE Transactions on Control Systems Technology*, under review, November 3, 2021.

2. Jie WEN\*, Yuanhao SHI, Xiaoqiong PANG, Jianfang JIA and Jianchao ZENG\*, Exponential Stabilization of Eigenstates for Quantum Spin- $\frac{1}{2}$  Systems via Improved State Feedback, *IEEE Transactions on Cybernetics*, under review, October 27, 2021.
3. Jie WEN\*, Yuanhao SHI, Jianfang JIA and Jianchao ZENG\*, Feedback Exponential Stabilization of Eigenstates for Quantum Spin- $\frac{1}{2}$  Systems, *European Physical Journal Plus*, under review, October 17, 2021.
4. Yanru YANG, Jie WEN\*, Yuanhao SHI, Jianfang JIA, Mengwei LI and Jianchao ZENG\*, Remaining Useful Life Prediction for Lithium-ion Batteries based on the Voltage and Temperature, *Measurement*, under review, July 26, 2021.

#### Journal Papers

1. Jie WEN\*, Yuanhao SHI, Jianfang JIA and Jianchao ZENG\*, Exponential Stabilization of Stochastic Quantum Systems via Combined Feedback, *Results in Physics*, 2021, 30: 104862. doi: 10.1016/j.rinp.2021.104862 (SCI, IF=4.476)
2. Jie WEN\*, Yuanhao SHI, Xiaoqiong PANG and Jianfang JIA, Optimal Soot Blowing and Repair Plan for Boiler Based on HJB Equation, *Optimization*, 2021. doi: 10.1080/02331934.2021.1954922 (SCI, IF=2.360)
3. Yanru YANG, Jie WEN\*, Yuanhao SHI and Jianchao ZENG\*, State of Health Prediction of Lithium-ion Batteries based on the Discharge Voltage and Temperature, *Electronics*, 2021, 10(12): 1497. doi: 10.3390/electronics10121497 (SCI, WOS: 000666001200001, IDS: SY6NB, IF=2.397)
4. Jie WEN\*, Yuanhao SHI, Jianfang JIA and Jianchao ZENG\*, Exponential Stabilization of Two-level Quantum Systems Based on Continuous Noise-assisted Feedback, *Results in Physics*, 2021, 22: 103929. doi: 10.1016/j.rinp.2021.103929 (SCI, WOS: 000632534300010, IDS: RC1AJ, IF=4.476)
5. Yanru YANG, Jie WEN\*, Yuanhao SHI, Zehui ZHANG, Wenhai LIU, Remaining Useful Life Prediction for Lithium-ion Battery based on CEEMDAN and SVR, *Journal of Electronic Measurement and Instrumentation*, 2020, 34(12): 197-205.
6. Jie WEN\*, Yuanhao SHI, Xiaoqiong PANG, Jianfang JIA and Jianchao ZENG\*, Rapid Stabilization of Time Delay Stochastic Quantum Systems based on Continuous Measurement Feedback, *Journal of The Franklin Institute*, 2020, 357(12): 7515-7536. doi: 10.1016/j.jfranklin.2020.05.016 (SCI, TOP, WOS: 000565957100004, IDS: NJ3ON, IF=4.504)
7. Jie WEN\*, Yuanhao SHI, Xiaoqiong PANG, Jianfang JIA and Jianchao ZENG\*, Optimization of Boiler Soot Blowing Based on Hamilton-Jacobi-Bellman Equation, *IEEE Access*, 2019, 7(1): 20850-20862. doi: 10.1109/ACCESS.2019.2897362 (SCI, TOP, WOS: 000460548400001, IDS: HN9VN, IF=3.367)
8. Jie WEN\*, Yuanhao SHI and Xiaonong LU, Stabilizing a Class of Mixed States for Stochastic Quantum Systems via Switching Control, *Journal of The Franklin Institute*, 2018, 355(5): 2562-2582. doi: 10.1016/j.jfranklin.2018.01.031 (SCI, TOP, WOS: 000427827800022, IDS: FZ8AQ, IF=4.504)
9. Jie WEN\*, Yuanhao SHI and Xiaonong LU, Stabilizing a Rotary Inverted Pendulum Based on Logarithmic Lyapunov Function, *Journal of Control Science and Engineering*, 2017, 2017: 4091302. doi: 10.1155/2017/4091302 (EI: 20171203481385)
10. Shuang CONG\*, Jie WEN, Sen KUANG and Fangfang MENG, Global Stabilization Control of Stochastic Quantum Systems, *SCIENCE CHINA Information Sciences*, 2016, 59(11): 112502. doi: 10.1007/s11432-015-0911-7 (SCI, WOS: 000389031400012, IDS: ED7GV, IF=4.380)
11. Jie WEN, Shuang CONG\*, Preparation of Quantum Gates for Open Quantum Systems by Lyapunov Control Method, *Open Systems & Information Dynamics*, 2016, 23(01): 1650005. doi: 10.1142/S1230161216500050 (SCI, WOS: 000373397200005, IDS: DI3KJ, IF=0.977)
12. Shuang CONG\*, Jie WEN and Xubo ZOU, Comparison of Time Optimal Control for Two Level Quantum Systems, *Journal of Systems Engineering and Electronics*, 2014, 25(1): 95-103. doi: 10.1109/JSEE.2014.00011 (SCI, WOS: 000333697000011, IDS: AE1AH, IF=1.186)

#### Conference Papers

1. Yanru YANG, Jie WEN\*, Yuanhao SHI, Jianfang JIA, Mengwei LI and Jianchao ZENG, Remaining Useful Life Prediction of Lithium-ion Batteries based on the Discharge Voltage, *2021 China Automation Congress*, Beijing, 2021: 10.22-10.24.

2. Jie WEN\*, Yuanhao SHI, Xiaoqiong PANG, Jianfang JIA and Jianchao ZENG\*, [Optimal Soot Blowing Strategies in Boiler Systems with Variable Steam Flow](#), *The 37th Chinese Control Conference*, Wuhan, 2018: 7.25-8.27. doi: [10.23919/ChiCC.2018.8484204](#) (EI: 20191106627178, CA).
3. Shuang CONG\*, Jie WEN, Fangfang MENG and Kezhi LI, [Global Stabilization of Mixed-states for Stochastic Quantum Systems via Switching Control](#), *IFAC-PapersOnLine*, 2017, 50(1): 13032-13037. doi: [10.1016/j.ifacol.2017.08.2001](#) (EI: 20181304949576, JA).
4. Jie WEN\*, Yuanhao SHI and Xiaonong LU, [Stabilizing a Rotary Inverted Pendulum Based on Lyapunov Stability Theorem](#), *The 29th Chinese Control and Decision Conference*, Chongqing, 2017: 5.28-5.30. doi: [10.1109/CCDC.2017.7978173](#) (EI: 20173504089966, CA)
5. Shuang CONG\*, Jie WEN, Sen KUANG and Fangfang MENG, [Global Stabilization of an Eigenstate for Stochastic Quantum Systems](#), *IEEE International Conference on Control & Automation*, Kathmandu, 2016: 6.01-6.03. doi: [10.1109/ICCA.2016.7505405](#) (EI: 20163102669472, CA)
6. Jie WEN, Shuang CONG\*, [Lyapunov-based Control for the Operator Preparation in Markovian Open Quantum Systems](#), *IEEE International Conference on Information and Automation*, Hailar, 2014: 7.28-7.30. doi: [10.1109/ICInfA.2014.6932658](#) (EI: 20145000304413, CA)
7. Jie WEN, Shuang CONG\* and Xubo ZOU, [Realization of Quantum Hadamard Gate Based on Lyapunov Method](#), *The 10th World Congress on Intelligent Control and Automation*, Beijing, 2012: 7.06-7.08. doi: [10.1109/WCICA.2012.6359443](#) (EI: 20130415919919, CA)
8. Jie WEN, Shuang CONG\*, [Transfer from Arbitrary Pure State to Target Mixed State for Quantum Systems](#), *The 18th World Congress of the International Federation of Automatic Control*, Milano, 2011: 8.28-9.02. doi: [10.3182/20110828-6-IT-1002.00389](#) (EI: 20124015492630, CA)