

Wuyue Yang

Curriculum Vitae

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Education

- 2017–2022 **Ph.D in Applied Mathematics**, *Yau Mathematical Sciences Center*, Tsinghua University, Beijing, China.
Thesis Title: Theory and Applications of Machine Learning Based on Differential Equations
- 2013–2017 **B.S. in Mathematics, Department of Mathematical Science, Beijing Forest University, Beijing, China.**
Thesis Title: Kinetic Studies on the Regulation mechanisms of Inhibitors on the Amyloid Fiber Formation

Professional Interests

Working in the research fields of interpretable differential equation machine learning, data analysis and bioinformatics.

Work Experience

- 2022–present **Assistant research fellow.**
Yanqi Lake Beijing Institute of Mathematical Sciences and Applications
- 2018–2020 **Teaching assistant.**
Department of Mathematics, Tsinghua University

Publications

- Li G, Yang W Y, Zhao Y F, et al. Differential Modulation of the Aggregation of NTerminal Truncated A using Cucurbiturils[J]. *ChemistryA European Journal*, 2018, 24(51): 13647-13653.
- Yang W, Tan P, Fu X, et al. Prediction of amyloid aggregation rates by machine learning and feature selection[J]. *The Journal of Chemical Physics*, 2019, 151(8): 084106.
- Li G, Yang W Y, Li W H, et al. Rational design of a cocktail of inhibitors against A aggregation[J]. *ChemistryA European Journal*, 2020, 26(16): 3499-3503.
- Yang W, Peng L, Zhu Y, et al. When machine learning meets multiscale modeling in chemical reactions[J]. *The Journal of Chemical Physics*, 2020, 153(9): 094117.

- Yang W, Zhang D, Peng L, et al. Rational evaluation of various epidemic models based on the COVID-19 data of China[J]. *Epidemics*, 2021, 37: 100501.
- Li G, Zhou Y, Yang W Y, et al. Inhibitory effects of sulfated polysaccharides from the sea cucumber *cucumaria frondosa* against A40 aggregation and cytotoxicity[J]. *ACS Chemical Neuroscience*, 2021, 12(11): 1854-1859.
- Hu P, Yang W, Zhu Y, et al. Revealing hidden dynamics from time-series data by ODENet[J]. *Journal of Computational Physics*, 2022, 461: 111203.
- Peng L, Yang W, Zhang D, et al. Epidemic analysis of COVID-19 in China by dynamical modeling[J]. arXiv preprint arXiv:2002.06563, 2020.
- Yang W, Peng L, Zhu Y, et al. Identification of hydrodynamic instability by convolutional neural networks[J]. arXiv preprint arXiv:2006.01446, 2020.

— Awards and Honors

- General Project of National Natural Science Foundation of China, 21877070, A dynamic study on the regulation mechanism of protein aggregation inhibitors.[Participation]
- Cover article of the journal of chemical physics
- Future Scholars Scholarship
- National Scholarship
- Outstanding Graduates of Beijing

— Skills and Activities

Programming Language Python, MATLAB, R

Environment Latex, Microsoft Office

Operating System Windows, Linux, macOS