

# Machine Learning in Quantum Mechanics

## Normalizing Flows for Computing Molecular Vibrational Wave Functions

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Hamburg, 07.09.2022

# Overview

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# Introduction



# The Challenge

- > Solving Schrödinger's Equation is **hard**

$$E_{t,ij} = \sum_{k,l} \sum_{\lambda_i, \lambda'_i} \rho_{\lambda_1, \lambda'_1}(e_1^-) \rho_{\lambda_2, \lambda'_2}(e_2^-) [T_{ij}^{\lambda_1 \lambda_2}(\tilde{\chi}_k^0)] \cdot [T_{ij}^{\lambda'_1 \lambda'_2}(\tilde{\chi}_k^0)]^*$$

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Nam liber tempor cum soluta nobis eleifend option congue nihil imperdiet ...

# The Challenge

- > Solving Schrödinger's Equation is **hard**
- > Usually turn to numerical approximations

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- > ...but numerics have limitations
- > The Curse of Dimensionality

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# Thank you!

## Contact

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