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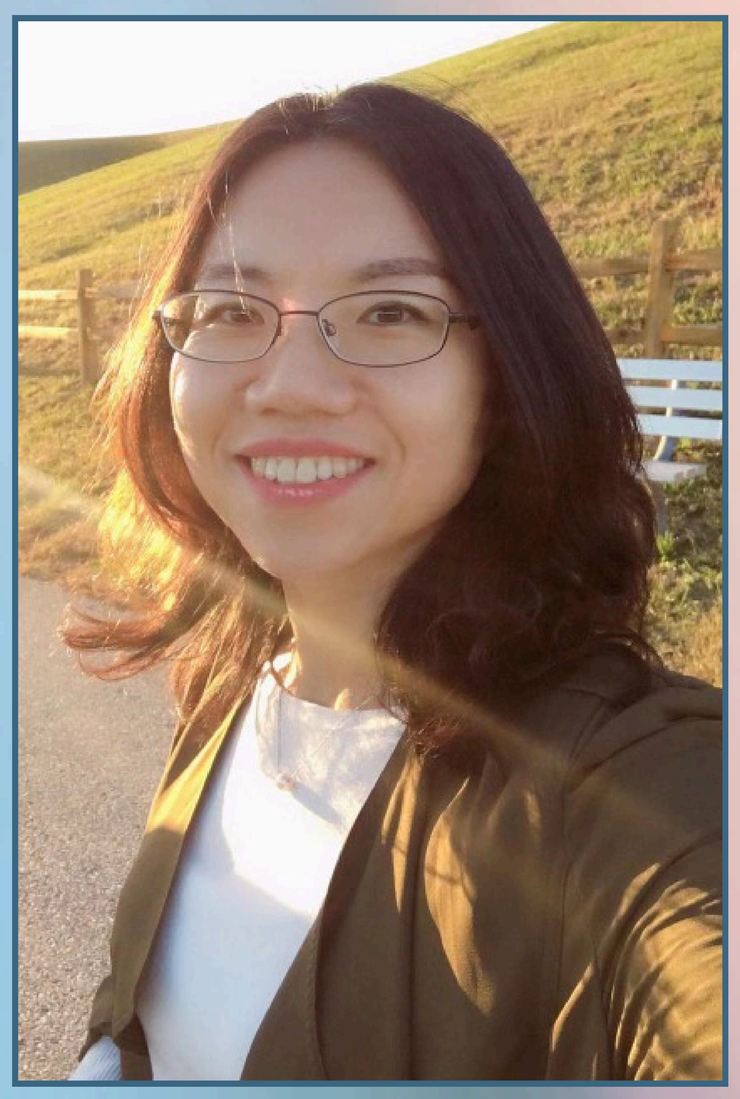

Control design for mixing in incompressible flows

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#FAUMoDLecture

WHEN

Thursday **December 5, 2024**
11:00H (Berlin time)

WHERE

On-site / Online

Friedrich-Alexander-Universität
Erlangen-Nürnberg
Room **01.019. Seminarraum**
Cauerstraße 7-9, 91058
Erlangen. Bavaria, Germany

FAU Zoom link:
https://go.fau.de/1bcfg

Meeting ID: **667 9081 1368**
PIN code: **716845**

Understanding mass transport, fluid mixing, and their asymptotic behaviors via active con- trol of the flow advection leads to fundamental, yet highly challenging problems often found in industrial and engineering applications. Examples include, but are certainly not limited to, ventilation in energy efficient buildings, mixing for bioorganic nutrient conversion, and activated sludge systems in industrial wastewater treatment. From a theoretic perspective, mixing has been studied by means of dynamical systems theory, homogenization, turbulence theory, control and optimization, etc. In this talk, we focus on control design for enhancing transport and mixing in incompressible flows. We will present some recent progresses as well as some open questions.