

Long-time dynamics of water-wave models

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Water-wave models play a crucial role in understanding, predicting, and controlling the dynamics of surface water waves across various real-world scenarios, including oceanic waves, waves in lakes and rivers, and those affecting man-made structures. These models integrate mathematical, physical, and numerical frameworks with wide-ranging applications in environmental science, engineering, and maritime industries. In this talk, we will explore key mathematical results for several water-wave models, highlighting their relevance to real-world applications.