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Xinyu Zhao*, 77 Leland Street, Unit 412, Hamilton, Ontario L8S 3A1, Canada, and **Jon Wilkening**. *Spatially Quasi-Periodic Gravity-Capillary Waves*.

We present a framework to compute and study two-dimensional spatially quasi-periodic gravity-capillary water waves. Specifically, we adopt a conformal mapping formulation of the water wave equation and represent quasi-periodic water waves by periodic functions on a higher-dimensional torus. In this setting, the computation of nonlocal Dirichlet-Neumann operator is reduced to a quasi-periodic variant of the Hilbert transform. We will present numerical examples of traveling quasi-periodic water waves and time evolution of water waves over quasi-periodic bathymetry. (Received September 20, 2021)