

# INTERSECTIONS

MATHEMATICS  
COLLOQUIUM



How the study of complex wave  
phenomena inspires beautiful  
mathematics

## Abstract:

Waves are all around us: ocean waves, sound waves, rainbows... scientists have spent countless hours trying to understand them, to predict them and to harness from them the energy that they encapsulate. In this talk I will try to convey how the mathematical study of these physical phenomena has also created and inspired a whole set of new mathematical tools that are elegant, powerful and also incredibly beautiful in their abstract nature. These tools are now used to answer open problems in completely different settings, from number theory to probability, to symplectic geometry and more.

The talk will be followed by an informal discussion on the issue of diversity in Mathematics.

Organized by Intersections – women and gender minorities in Math at Yale with the support of the Mathematics Department.



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Yale