

# Composition Operators $\heartsuit$ Toeplitz Operators

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These lectures will focus on the way in which Toeplitz operators enter into the study of composition operators, with particular emphasis on the Hardy space  $H^2$ . Here is a tentative outline:

### **Lecture 1.** *Introduction to composition operators*

- Why are they interesting?
- Why are they bounded?
- First connections with Toeplitz operators.

### **Lecture 2.** *Adjointness of composition operators*

- Cowen's formula for the linear-fractional case.
- Branching out beyond linear-fractional.

### **Lecture 3.** *Normality of composition operators*

- Which composition operators are normal?
- Which composition operators are *essentially* normal?

### **Lecture 4.** *Toeplitzness of composition operators*

- Which composition operators are Toeplitz?
- Which composition operators are *asymptotically* Toeplitz?
- Which composition operators are *mean* asymptotically Toeplitz?