

# HYPERCYCLICITY AND SUPERCYCLICITY OF COMPOSITION OPERATORS ON $H^2(\mathbb{D})$

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**Abstract:** In this expository talk we will be concerned with hyper-cyclicity and super-cyclicity of composition operators with linear fractional symbols on the Hardy space  $H^2(\mathbb{D})$ . We will give the proof of the well-known result: for a linear fractional  $\varphi : \mathbb{D} \rightarrow \mathbb{D}$ ,  $C_\varphi$  is hyper-cyclic on  $H^2(\mathbb{D})$  if and only if  $\varphi$  is hyperbolic or  $\varphi$  is a parabolic automorphism. We will also give the proof of the fact that if  $\varphi$  is a parabolic non-automorphism then  $C_\varphi$  is not super-cyclic.

**Date:** July 21, 2012

**Time:** 13:30–14:30

**Place:** Sabancı University, Karaköy Communication Center  
Bankalar Caddesi 2, Karaköy 34420, İstanbul