



Department of Mathematics
The Chinese University of Hong Kong

數學系
香港中文大學

Phone: (852) 3943 7988 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk (Math. Dept.)
Room 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

Seminar

Seifert surfaces in the 4-ball

Prof. JungHwan Park

*Korea Advanced Institute of Science and
Technology*

Abstract

We answer a question of Livingston from 1982 by producing Seifert surfaces of the same genus for a knot in the 3-sphere that do not become isotopic when their interiors are pushed into the 4-ball. We give examples where the surfaces are not topologically isotopic in the 4-ball, as well as examples that are topologically but not smoothly isotopic. These latter surfaces are distinguished by their associated cobordism maps on Khovanov homology, and our calculations demonstrate the stability and computability of these maps under certain satellite operations. This is joint work with Kyle Hayden, Seungwon Kim, Maggie Miller, and Isaac Sundberg.

Date: 22 August 2023 (Tuesday)
Time: 14:00pm – 15:00pm (Hong Kong Time)
Venue: Room 222, LSB

All are Welcome