REVISED

THE UNIVERSITY  OF HONG KONG

Institute of Mathematical Research
Department of Mathematics

MINI COURSE

An introduction to relative Calabi-Yau structures

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Abstract

Relative Calabi-Yau structures were first hinted at in a survey by Toën in 2014. Later, the theory was fully developed by Brav-Dyckerhoff in a paper from 2019. In this minicourse, we will first present the definition of left and right relative Calabi-Yau structures following Brav-Dyckerhoff and illustrate it on examples from algebraic geometry and cluster theory. We will then explain Brav-Dyckerhoff's gluing theorem and discuss its links to Fock-Goncharov's amalgamation construction. Finally, we will sketch Bozec-Calaque-Scherotzke's theorem linking relative Calabi-Yau completions to derived conormal bundles.

Lecture 1:	September 25, 2023 (Monday)	2:00 – 3:30 pm
Lecture 2:	September 26, 2023 (Tuesday)	10:00 – 11:30 am (Revised)
Lecture 3:	September 28, 2023 (Thursday)	2:00 – 3:30 pm

Room 210, Run Run Shaw Bldg., HKU

All are welcome