



GEOMETRY SEMINAR

Relative left Bongartz completions and their compatibility with mutations

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Abstract

Let t_1 and t_2 be two seeds of a cluster algebra with at least one common cluster variable. Fomin-Zelevinsky conjectured there exists a mutation sequence going from t_1 to t_2 without changing their common cluster variables. One can make similar conjectures in many different contexts. For example, in the cluster tilting theory, one can expect that if two cluster tilting objects T_1 and T_2 are mutation connected and they contain at least one common direct summand, then there exists a mutation sequence going from T_1 to T_2 without changing their common direct summands. In this talk, I will explain a general idea to deal with such problem. The general idea is to construct completion operators such that they have nice compatibility with mutations. I will focus on cluster tilting theory and give the construction of such completion operators in this setting.

Date:	November 1, 2022 (Tuesday)
Time:	4:00 - 5:00pm
Venue:	Room 210, Run Run Shaw Bldg., HKU

All are welcome