

# The Hong Kong University of Science and Technology

# **Department of Mathematics**

## **Seminar on Geometry**

## On Feynman Geometry By

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#### Abstract

We introduce a notion of Feynman geometry on which quantum field theories could be properly defined. A strong Feynman geometry is a geometry when the vector space of  $A_{\infty}$  structures is finitely dimensional. A weak Feynman geometry is a geometry when the vector space of  $A_{\infty}$  structures is infinite dimensional while the relevant operators are of trace class. We construct families of Feynman geometries with "Continuum" as their limit.

Date : Friday, 3 November, 2017 Time: 11:00a.m.-12:00noon Venue: Room 5508, Academic Building (near Lifts 25&26), HKUST All are welcome!