



**The Hong Kong University of Science & Technology**

**Department of Mathematics**

**PhD Student Seminar**

**The mixed volume of semi-algebraic sets**

**By**

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**Abstract**

Mixed Volume, the key concept to Minkowski theory, is originally defined on the class of convex bodies. By introducing Geissinger multiplication on the vector space generated by indicator functions of certain sets, it can be developed algebraically and extended to other classes. Here we choose the class of semi-algebraic sets. The triviality theorem makes the Geissinger multiplication well-defined on the vector space generated by indicator functions of semi-algebraic sets. We will give the definition of mixed volume on the vector space and study its properties.

***Date: Wednesday, 9 May 2018***

***Time: 10:00 a.m.- 11:00 a.m.***

***Venue: Room 4475 (near lift 25, 26)***

***All are welcome!***