

**COLLOQUIUM****Algebraic geometry of the classical Yang-Baxter equation****Professor Igor Burban**

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**Abstract**

In my talk, I am going to explain a geometric description of solutions of the classical Yang-Baxter equation (CYBE). Namely, starting with any pair  $(E, A)$ , where  $E$  is an irreducible plane cubic curve and  $A$  a torsion free sheaf of Lie algebras (whose generic fiber is a given complex simple Lie algebra) with vanishing cohomology (and satisfying an additional isotropy condition if  $E$  is singular) one can associate to it a solution of CYBE. It turns out that all solutions of CYBE arise in this way. The developed theory will be illustrated by explicit examples and some consequences of this geometrization procedure will be given.

Date: December 6, 2021 (Monday)

Time: 4:00 - 5:00pm (Hong Kong Time)

Venue: ZOOM: <https://hku.zoom.us/j/>

Meeting ID: 543 448 2374

*All are welcome*