

1009-17-155

Gaywalee Yamskulna* (gyamsku@ilstu.edu), Department of Mathematical Sciences, Illinois State University, Normal, IL 61790. *Vertex Poisson algebras associated with Courant algebroids.*

We study relationships between vertex Poisson algebras and Courant algebroids. For any \mathbb{N} -graded vertex Poisson algebra $A = \coprod_{n \in \mathbb{N}} A_{(n)}$, we show that $A_{(1)}$ is a Courant $A_{(0)}$ -algebroid. On the other hand, for any Courant \mathcal{A} -algebroid \mathcal{B} , we construct an \mathbb{N} -graded vertex Poisson algebra $A = \coprod_{n \in \mathbb{N}} A_{(n)}$ such that $A_{(0)}$ is \mathcal{A} and the Courant \mathcal{A} -algebroid $A_{(1)}$ is isomorphic to \mathcal{B} as Courant \mathcal{A} -algebroids. (Received August 15, 2005)