

Title: The Poisson spectrum of the first part of the second case of classification

Abstract: Poisson algebras can be defined as Lie algebras that satisfy the Leibniz rule. In our research, we classified a large class of Poisson algebras $A = (D, \alpha, \beta, c, u)$ that appears in [3, Lemma 1.3]. In specific, our class $A = K[t][x, y] = (K[t], \alpha, \beta, c, u)$ is a Poisson polynomial algebra in two variables x and y with coefficients on the Poisson polynomial algebra $K[t]$, where K is an algebraic closure field with zero characteristic. Our aim is to classify some finite dimensional Poisson modules over class A . Also, we are interested in the Poisson spectrum of A , minimal and maximal Poisson ideals of A . The classification of A consists of three main cases and each case has several subcases. In this talk, I will give some background in Poisson algebras, introduce the Poisson algebra class A , talk about the first part of the second case and its Poisson spectrum.

References

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