

The Oliver Club

www.math.cornell.edu/~oliver/

Simple Nonholonomic Modules Over the Weyl Algebra

We consider the Weyl algebra A_n , which is the algebra of differential operators with polynomial coefficients on the n -dimensional space C^n . Nonzero modules over A_n of the "smallest" size are called holonomic. Some time ago, it was conjectured that a simple A_n -module must be holonomic. This turned out to be quite false. I will explain a beautiful simple idea, due to J. Bernstein, how to give a geometric proof of this fact.



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Refreshments will be served at 3:55 PM in the Mathematics Department lounge (532 Malott Hall).

Thursday, October 12, 2006
at 4:25 PM in 406 Malott Hall