

## **Buchsbaum bundles on the projective space.**

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### **Abstract:**

The aim of this talk is to give an answer (either positive or negative) to the following question: given a vector bundle  $E$  on the projective space  $P^{2n+1}$ , is  $E$  a  $k$ -Buchsbaum bundle if and only if  $E$  is the instanton bundle of rank  $2n$  and charge  $k$ ? In the first part of the talk we will see the basic definition and classical results while the second part will be focused on the partial answers obtained so far and on our hopes for the future. This is a work in progress with Marcos Jardim