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## Observability and orders of derivatives of data

Sette Diop<sup>1</sup>

Observability of nonlinear systems has been approached using differential algebraic geometry with quite interesting breakthroughs in this systems theory notion. Among detailed aspects to be studied is the relationship between observability of, say  $z$ , and the minimum order of derivatives of data. This relationship is an ingredient in the design and the complexity of observers. This talk will give new insights in this topic.

**Keywords:** Observability, systems theory, differential algebra

<sup>1</sup>Laboratoire des Signaux & Systèmes,  
France  
`diop@l2s.centralesupelec.fr`