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## SEMINARIO

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### ***Stability properties for ultraholomorphic classes defined by a weight matrix***

**Abstract:** We present a characterization of some stability properties for Carleman-Roumieu ultraholomorphic classes, defined on sectors and in terms of a weight matrix.

We generalize the result of J. A. Siddiqi and M. Ider for such classes defined on sectors not wider than a half plane and in terms of a single sequence which controls (except for a constant and a geometric factor) the growth of the complex derivatives. More precisely, we generalize in two directions:

- (i) We give the proof in the general weight matrix setting and get, in particular, the corresponding theorem for the sequence case.
- (ii) We extend the list of stability properties and consider sectors of unrestricted opening. This generalization rests of the construction, under suitable assumptions, of the characteristic functions in arbitrary sectors.

Joint work with J. Jiménez-Garrido, J. Sanz and G.~Schindl.

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**Seminario del IMUVa, edificio LUCIA**  
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