

Seminari de Geometria Algebraica 2016-2017

Divendres 10 de març a les 15:00, aula T2 FMI-UB

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## SINGULAR FIBERS OF THE GELFAND-CETLIN SYSTEM ON $\mathfrak{u}(n)^*$

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The classical Gelfand-Cetlin system is a completely integrable system on the coadjoint orbits of the Lie algebra  $\mathfrak{u}(n)$  introduced by Guillemin and Sternberg. In this talk we will recall the definition of this system and show that its singular fibers are embedded submanifolds, which is quite a surprise regarding the fact that the system has degenerate singularities. The proof relies on a geometric interpretation of the singular fibers as increasing sequences of ellipsoids in  $\mathbb{C}^n$  with fixed radii.

This is a joint work with Eva Miranda and Nguyen Tien Zung.