Barcelona Analysis Seminar **2023–2024**

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Random interpolating sequences in large spaces of holomorphic functions

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The study of interpolating sequences for holomorphic functions in one or more complex variables is a major area of research in complex analysis. For many spaces, such as Hardy spaces, these sequences are well understood, while for others a characterization exists that is not very easy to verify. This is the case for the Nevanlinna class and the Smirnov class, where the characterization involves harmonic majorants. In this scenario, it is useful to consider a random setting, which can help us understand when the interpolation is "generic".

In this talk we recall the characterization of free interpolating sequences for the Nevanlinna and Smirnov classes and then focus on a random setting. We are interested in a radial model, in which the radii are fixed and non-random, while the point arguments are uniformly distributed. This model has been extensively studied in the literature over the past 30 years, with the goal of better understanding both interpolating sequences and zero sets. The result we present is a complete characterization of free interpolating sequences (for Nevanlinna class and Smirnov class) that are realizations of the above point process. In particular, it turns out that in this context the Blaschke condition is sufficient to obtain almost surely free interpolating sequences.