



Seminario de Doctorado IUMA

Conferencia

por

Francisco J. Cruz-Zamorano

Universidad de Sevilla

Título:

Holomorphic maps with a prefixed image and their inclusions in Hardy spaces

Resumen:

The so-called Hardy spaces H^p , $0 < p < +\infty$, are a family of spaces of holomorphic functions defined on the unit disk. These spaces were introduced in the 1920s after a seminal work of G. H. Hardy. Nowadays, they are a vast, rich, and active topic of research in Functional Analysis and Complex Variables, for instance.

The purpose of this talk is to present a classical problem proposed by M. Essén in the 1980s. Namely, given a domain Ω , the problem consists in finding the values $p > 0$ such that all holomorphic functions on the unit disk whose image is contained in Ω are in H^p . The supremum of such values is known as the *Hardy number* of Ω .

The problem is naturally connected to Potential Theory. In this sense, we will review some recent collaborations with Dimitrios Betsakos, Manuel D. Contreras, Maria Kourou, and Luis Rodríguez-Piazza.

Fecha: Jueves, 21 de noviembre de 2024.

Hora: 17:00 horas.

Lugar: Seminario Rubio de Francia. Primera planta, Edificio B, Facultad de Ciencias.