

1078-43-6

S. M mahmooudi* (saeedmahmodi2060@yahoo.com), no 5 yase1 ammaryaser nirogah Qom Iran, 3713995345 Qom, Iran. *Sampling in Complex and Harmonic Analysis*.

Abstract. This is a survey article on uniqueness, sampling and interpolation problems in complex analysis. Most of these problems are motivated by applications of great practical importance in signal analysis and data transmission, but they also admit other mathematical formulations relating them to fundamental questions about existence of good bases in function spaces. This circle of ideas in complex analysis has experienced in recent years a notorious revitalization, mostly because of its connections with analogous problems in time-frequency and wavelet analysis, some of which will be discussed as well. (Received July 31, 2011)