

An Application of the Erdos-Turan-Koksma Inequality in Almost-Periodic Homogenization

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In this talk we will describe an application of the Erdos-Turan-Koksma inequality in the study of homogenization of elliptic equations and systems with highly oscillating almost-periodic coefficients. The talk will begin with a brief introduction of homogenization of elliptic equations. We will then discuss estimates for approximating correctors in terms of a function that quantifies the almost-periodicity of coefficients. Finally we will indicate how to use the Erdos-Turan-Kosma inequality to establish power decay of this function in the case of quasi-periodic coefficients.