

## ON EQUIVALENCE OF COEFFICIENT CONDITIONS AND APPLICATION

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*Abstract.* We show that the simplest coefficient condition

$$\sum_{n=1}^{\infty} |c_n|^q \gamma_n \mu_n < \infty,$$

under specific assumptions on the sequence  $\{\mu_n\}$ , is equivalent to the conditions

$$\sum_{m=1}^{\infty} \beta_m \left( \sum_{n=1}^m \gamma_n |c_n|^q \right)^{p/q} < \infty,$$

and

$$\sum_{m=1}^{\infty} \lambda_m \left( \sum_{n=m}^{\infty} \gamma_n |c_n|^q \right)^{p/q} < \infty,$$

respectively. Plainly the assumptions on  $\{\mu_n\}$  depend on  $\{\beta_m\}$ , or  $\{\lambda_m\}$ , and  $0 < p < q$ .

An application to absolute  $|C, \alpha|$ -summability of general orthogonal series is also presented.

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