

COMPARISON OF SOME TRIGONOMETRIC INTEGRALS

PIOTR SWOROWSKI AND VALENTIN SKVORTSOV

An integral, more general than Lebesgue's, is called *trigonometric integral* if it solves the recovery problem for coefficients of an everywhere convergent trigonometric series; that is, if it allows to consider every such series as the Fourier series of the sum, with integrals in Fourier's formulae understood in this generalised sense.

Relations between trigonometric integrals such as Burkill's SCP-integral, Marcinkiewicz and Zygmund's MZ-integral, Preiss and Thomson's AS-integral, will be considered. All necessary notions will be introduced.

INSTITUTE OF MATHEMATICS, CASIMIRUS THE GREAT UNIVERSITY, BYDGOSZCZ, POLAND

FACULTY OF MECHANICS AND MATHEMATICS, LOMONOSOV MOSCOW STATE UNIVERSITY, RUSSIA