

Streszczenie rozprawy w języku angielskim

The first part of the dissertation presents the proof of the analytical continuation and the functional equation for the function $m(F, w)$. This is a joint generalisation of previous theorems proven by K. Bartz and A. Łydka, to the case, when the function F belongs to the class S^T , being a subset of the Selberg class.

The main part of the dissertation presents proofs of Ω theorems for the summatory function of the generalized Möbius function of an elliptic curve defined over rational numbers.

A handwritten signature in blue ink, reading "Karol Górecki". The signature is written in a cursive style with a prominent loop at the end of the last name.