

# CAPACITY ASYMPTOTICS FOR GENERALIZED AND CLASSICAL PLANE CONDENSERS AND APPLICATIONS

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A collection of disjoint closed sets belonging to a closure of some domain in the extended complex plane together with real numbers (potentials) assigned to each set is called generalized condenser. We define capacity for such condenser and consider two types of degeneration: (a) vanishing plates (b) approaching plates. For the former case we present an asymptotic formula of Dubinin and its various applications in geometric function theory. For the latter case we discuss an unsolved problem of Kuehnau and related history and partial solutions.