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# On the generalized Dirichlet problem for plurisubharmonic functions[1)]

Dedicated to Professor A. Kobori on the occasion of his sixtieth birthday

By

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**Introduction.** With the Perron's method in the classical potential theory Bremerman [8] first treated the Dirichlet problem for plurisubharmonic functions. The base domains $D$ considered were mainly bounded domains of holomorphy of the form $\{z\,;\ V(z)<0\}$ where $V$ is plurisubharmonic on the closure of $D$. His lower solution in $D$ does not necessarily attain the boundary values even if the boundary and boundary function are nice. In fact he showed that the lower solution attains (in his sense) the continuous boundary value only if it is prescribed on the Silov boundary $S(D)$ of $D$. A generalization of this result was given by Górski [10] for more general domain $D$ and $S^*(D)$ (Silov boundary with respect to plurisubharmonic functions (see Siciak [16])).

In this paper we shall study further such a generalized Dirichlet problem with various applications to functions of several complex variables and plurisubharmonic functions. First in § 1, for given boundary function $f$ we define the plurisubharmonic lower solution $\underline{T}f$ and plurisuperharmonic upper solution $\bar{T}f$ without regard to the Silov boundary of the base domain and introduce the notion

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