parallel to the coordinate axes. Choose $x^0 \in A(x, X \setminus K) \cap (X \setminus D)$. Applying Proposition 8, there is $y^0 \in A(x, X \setminus K)$ such that

$$y^0_{n+1} < \min_{x \in D} x_{n+1} .$$

Again by Proposition 8, $B = A(y^0, X) \subset A(x, X \setminus K)$.

17. Proposition. *Let E be a compact subset of X. If E is convex (or more generally, if the set $\{x \in E;\ x_{n+1} = c\}$ is convex for each $c \in R$) then $r(E) = r(E^*) = E$.*

Proof. Consider $x^0 \in X \setminus E$ and let P be an arbitrary line which contains x^0, $P \subset \{x \in X;\ x_{n+1} = x^0_{n+1}\}$. Consider $A(x^0, X \setminus E)$ and denote by P_1 the half-line starting from x^0 for which $P_1 \cap E = \emptyset$. Then according to Proposition 8, $P_1 \subset \subset A(x^0, X \setminus E)$, i.e. $A(x^0, X \setminus E)$ is unbounded. This means $x^0 \notin r(E)$. Thus we have $r(E) \subset E$. Obviously $E \subset r(E)$. Analogously we can show that $r(E^*) \subset E$. Further, if $x^0 \in \operatorname{int} E$, then $\operatorname{int} E$ is closed and open – hence also finely open – in $X \setminus E^*$. By [2] $\operatorname{int} E$ is an absorbent set in $X \setminus E^*$. Hence $A(x^0, X \setminus E^*) \subset \operatorname{int} E$, i.e. $A(x^0, X \setminus E^*)$ is bounded and $x^0 \in r(E^*)$. Simultaneously $E^* \subset r(E^*)$ and this completes the proof.

References

[1] *H. Bauer:* Harmonische Räume und ihre Potentialtheorie, Springer Verlag, Berlin, 1966.

[2] *Ch. Berg:* Quelques propriétés de la topologie fine dans la théorie du potentiel et des processus standard, Bull. Sci. Math. *95* (1971), 27–31.

[3] *C. Constantinescu* and *A. Cornea:* Potential theory on harmonic spaces, Springer Verlag, Berlin, 1972.

[4] *R.-M. Hervé*: Recherches axiomatiques sur la théorie des fonctions surharmoniques et du potentiel, Ann. Inst. Fourier *12* (1962), 415–571.

[5] *J. M. Landis:* Equations of the second order of elliptic and parabolic types (Russian), Nauka, Moscow, 1971.

[6] *P. A. Loeb:* An axiomatic treatment of pairs of elliptic differential equations, Ann. Inst. Fourier *16*, 2 (1966), 167–208.

[7] *J. Lukeš* and *I. Netuka:* The Wiener type solution of the Dirichlet problem in potential theory, Math. Ann. *224* (1976), 173–178.

[8] *N. Wiener:* Certain notions in potential theory, J. Math. Massachussetts *3* (1924), 24–51.

Author's address: 186 00 Praha 8, Sokolovská 83, ČSSR (Matematicko-fyzikální fakulta UK).