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Corrections to "Semi-Infinite Programs and Conditional Gauss Variational Problems"

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1. The proof of Theorem 5 (p. 185) is not complete in case $z_0=0$. We shall give a correct proof in this case. Let e_k be the point of R^n whose j-th co-ordinate is equal to 0 if $j\neq k$ and 1 if $j=k$. Since $A(P)$ is a convex cone and $0\in A(P)^{\circ}$, we have $A(P)=R^n$. Therefore there exists a set $\{x_j; j=1,\cdots, n+1\}$ in P such that

$$Ax_j=-e_j \qquad (j=1,\cdots, n),\ Ax_{n+1}=\sum_{j=1}^{n} e_j.$$

Writing $\bar{x}=\sum_{j=1}^{n+1} x_j$, we have $\bar{x}\in P$ and $A\bar{x}=0$. It is clear that $\{x_j; j=1,\cdots, n\}$ is a system of components of $\bar{x}$.

2. Lemma 4 (p. 202) is not valid in case $z_0=0$. Since this lemma played an essential role in the proofs of the following results in our papar, we must add the assumption $z_0\neq 0$ to these results: Theorem 13 (p. 204), Theorem 17 (p. 210), Proposition 12 (p. 211), Theorem 19 (p. 213), Theorem 20 (p. 214).

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