



$$u + KF u = w. \quad (2.1)$$

Without loss of generality we may assume that $w \equiv 0$ so that (2.1) becomes

$$u + KF u = 0. \quad (2.2)$$

Remark 1. (2.1) implies that

$$(u - w) + KF u = 0. \quad (2.3)$$

Setting $h = u - w$, we have that $u = h + w$. So that (2.3) becomes

$$h + KF(h + w) = 0. \quad (2.4)$$

Define $\hat{F}h = F(h + w)$, then (2.4) becomes

$$h + K\hat{F}h = 0. \quad (2.5)$$

Clearly, $\hat{F}$ is monotone if F is and h solves (2.5) if and only if u solves (2.3).

Theorem 1.1: C_n is used, but not defined.

Remark 2. For the meaning of P_n^* , P_n , and C_n , please see [D. Pascali and S. Sburian, *Nonlinear mappings of monotone type*, Editura Academia Bucuresti, Romania, 1978]. We also wish to remark here that $K_n = P_n^* K P_n : H \rightarrow C_n$ not $K_n = P_n^* K P_n : H \rightarrow C$ as written in the previous manuscript.

Two rows before (2.2): "... , then equation (2.1) reduces to...".

Let E be a smooth real Banach space with dual E^* . The function $\phi : E \times E \rightarrow \mathbb{R}$, is defined by,

$$\phi(x, y) = \|x\|^2 - 2\langle x, Jy \rangle + \|y\|^2, \text{ for } x, y \in E, \quad (2.6)$$

where J is the normalized duality mapping from E into 2^{E^*} .

Remark 3. This is simply wrong numbering. It should be (2.6) reduces to $\phi(x, y) = \|x - y\|^2$ for $x, y \in H$.

Lemma 2.11 "Let... real Banach space..."

Remark 4. In the proof of lemma 2.2, the following theorem of [F. E. Browder, *Existence and perturbation theorems for nonlinear maximal monotone operators in Banach spaces*, Bull. Amer. Math. Soc. Volume 73, Number 3 (1967), 322-327] will be essential.

Theorem 2.1. Let E be a strictly convex and reflexive Banach space with a strictly convex conjugate space E^* , T_1 a maximal monotone mapping from E to E^* , T_2 a hemicontinuous monotone mapping of all of E into E^* which carries bounded subsets of E into bounded subsets of E^* . Then, the mapping $T = T_1 + T_2$ is a maximal monotone map of E into E^* .

Lemma 2.2. Let E be a uniformly convex and uniformly smooth real Banach and $F : E \rightarrow E^*$, $K : E^* \rightarrow E$ be maximal monotone. Define $A : E \times E^* \rightarrow E^* \times E$ by

$$A[u, v] = [Fu - v, Kv + u] \quad \forall [u, v] \in E \times E^*.$$

Then, A is maximal monotone.

Proof. Let $S, T : E \times E^* \rightarrow E^* \times E$ be defined as

$$S[u, v] = [Fu, Kv], \quad T[u, v] = [-v, u].$$

Then, $A = S + T$. It suffices to show that S and T are maximal monotone. Observe that S is monotone. Let $h = [h_1, h_2] \in E^* \times E$. Since F, K are maximal monotone, take $u = (J + \lambda F)^{-1}h_1$ and $v = (I + \lambda K)^{-1}h_2$, where J is the normalized duality map on E^* . Then, $(J + \lambda S)w = h$, where $w = [u, v]$. Hence, S is maximal monotone.

Clearly, T is bounded and monotone. Furthermore it is continuous. Hence, it is hemi-continuous. Therefore by theorem (2.1) above, $A = S + T$ is maximal monotone.

□

Two rows before Theorem 3.2: “Thus from inequality (2.2) we have ... are bounded”.

Please explain in more detail this conclusion.

...we have $\phi(u^*, u_n) \leq r$ and $\phi(v^*, v_n) \leq r$ for all $n \geq 1$. Thus from inequality (2.7), we have that $\{u_n\}_{n \geq 1}$ and $\{v_n\}_{n \geq 1}$ are bounded.

Remark 5. It is obvious from the definition of the function ϕ that

$$(\|x\| - \|y\|)^2 \leq \phi(x, y) \leq (\|x\| + \|y\|)^2 \text{ for } x, y \in E. \quad (2.7)$$

This implies that

$$(\|u_n\| - \|u^*\|)^2 \leq \phi(u^*, u_n) \leq r \text{ for all } n \geq 1.$$

Hence,

$$\|u_n\| \leq r_1 \text{ for all } n \geq 1,$$

where $r_1 = \sqrt{r} + \|u^*\|$. Similarly,

$$\|v_n\| \leq r_2 \text{ for all } n \geq 1,$$

where $r_2 = \sqrt{r} + \|v^*\|$.

Remark 6. Finally, minor REVISION comments which are typos have been effected in the revised manuscript.

Remark 7. We wish to thank the referees for their comments and suggestions.