Errata in “Partial Identification Using Random Set Theory”*  
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After our article Beresteanu, Molchanov and Molinari (Journal of Econometrics 166 (2012) 17–32, BMM henceforth) went into press, we found a non sequitur in the proof of Lemma B.2. Here we correct this lemma, and sharpen two results which use it. We also provide a list of typos that escaped us in the proof-reading stage.

**Correction of Lemma B.2**

**Lemma B.2** Let $X$ be a random compact set. Then a random vector $x$ is stochastically smaller than $X$ if and only if

\[ P(x \in K_X) \geq P(X \subset K_X), \]

for all sets $K_X$ defined as $K_X = \bigcup_{\omega \in \Omega'} \{X(\omega) : X(\omega) \subset K\}$, where $K$ is any compact set and $\Omega'$ is a fixed set of full probability.

**Proof.** Take a compact set $K$. By construction, $P(X \subset K) = P(X \subset K_X)$ and $K_X \subset K$. Hence, $P(x \in K) \geq P(x \in K_X)$ and if the dominance condition (2.2) in BMM holds for the set $K_X$, it also holds for $K$. ■

**Remark.** If $X$ is a random compact interval on the line, the set $K_X$ is necessarily a union of disjoint intervals. In this case, $P(X \subset K_X)$ is the sum of the probabilities that $X$ is a subset of each individual interval, and therefore it suffices to check condition (*) for $K_X$ being any interval.

In light of the corrected Lemma B.2, the following amendments are provided:

- **Propositions 2.3 and 2.5:** $\bar{K} = \bar{K}(0) \cup \bar{K}(1) \cup \cdots \cup \bar{K}(T)$ (i.e., one should not take the convex hull of the set on the right hand side of the expression);
- **Proposition C.1:** The last sentence in the statement of the proposition needs to be deleted.

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Correction of Typos

- **Theorem 2.1**: In the statement of the theorem, “a random closed set $X$” should read “a random compact set $X$”;

- **Proposition 2.6**: In the statement of the proposition, for the general case, $H \left[ P(y(t)) \right]$ should read:

$$H \left[ P(y(t)) \right] = \left\{ \mu \in \Gamma_Y : \mu(K) \geq \operatorname{ess sup}_{v \in V} P \left( \overline{Y}(t) \subset K \mid v \right) \forall K \in \mathcal{K}(Y) \right\}.$$  

For $Y = [0,1]$, $H \left[ P(y(t)) \right]$ should read

$$H \left[ P(y(t)) \right] = \left\{ \mu \in \Gamma_Y : \mu([k_1, k_2]) \geq \operatorname{ess sup}_{v \in V} P \left( y \leq k_2, z > t \mid v \right) 1(k_1 = 0) + P \left( y \in [k_1, k_2], z = t \mid v \right) \right.$$ 

$$+ P \left( y \geq k_1, z < t \mid v \right) 1(k_2 = 1) \forall k_1, k_2 \in Y : k_1 \leq k_2 \right\}.$$  

Similar corrections apply to the proof of this result.

- **Proof of Proposition 3.3**: Second column, line 11, $E \left( \bar{w} \left( \psi - \bar{w}' \theta \right) \right)$ should be replaced by $E \left( \bar{w} \left( \psi - \bar{w}' \theta \right) \right)$.

- **Page 28**: Second column, line 25, “random closed set $X$” should read “random compact set $X$”

The authors apologize for the inconvenience caused by these errata.