Inverse problem for lattice points

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Let $K \subseteq \mathbb{R}^2$ be a compact set such that $K + \mathbb{Z}^2 = \mathbb{R}^2$. In this talk we show that the integer points of the difference set of K, $(K - K) \cap \mathbb{Z}^2$, is not contained on the coordinate axes, $\mathbb{Z} \times \{0\} \cup \{0\} \times \mathbb{Z}$. This result gives a negative answer to a question posed by P. Hegarty and M. Nathanson on relatively prime lattice points.

This is a joint work with Camilo Sanabria.

For more information please visit the seminar website at:
http://www.math.nyu.edu/seminars/geometry_seminar.html.