



ÇANKAYA UNIVERSITY
Department of Mathematics

Solve It

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Question : Is it possible to cover the plane by countably many points from the plane?
In other words, is it possible to write \mathbb{R}^2 as
 $\mathbb{R}^2 = \bigcup_{k \in \mathbb{N}} \{p_k\}$, where $p_k = (a_k, b_k) \in \mathbb{R}^2$.
(**Hint :** See Baire Category Theorem)