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## MONOCHROMATIC UNIT CYCLES IN THE PLANE

We show that for every integer  $\ell \geq 2$ , every 2-coloring of the plane contains a monochromatic set of  $2\ell$  points such that the unit segments between them form a  $2\ell$ -cycle  $C_{2\ell}$ . We also discuss odd cycles, higher dimensions, and larger number of colors.

Based on joint works with Nóra Almási, Maria Axenovich, Dingyuan Liu, and Kenneth Moore.