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W. Patrick Hooper* (wphooper@math.northwestern.edu), W. Patrick Hooper, Dept. of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, IL 60208-2730. *Billiards near triangles with the lattice property.*

We will discuss aspects of the following recent theorem:

”Let T_i be a sequence of triangles converging to an isosceles triangle T . Then, there is an N so that T_i has a periodic billiard path for $i > N$.”

The proof is relatively simple when the limiting triangle T does not have the lattice property. We will describe why it can be hard to find periodic billiard paths in triangles T_i converging to a triangle T with the lattice property.

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