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Andrew Lorent* (lorentaw@uc.edu), 2313 Ravine Apartment 2, 2600 Clifton Ave, yes, OH 45219, and Guanying Peng (gpeng@wpi.edu), 100 Institute Road, Worcester, MA 01609-2280. Rigidity of a non-elliptic differential inclusion related to the Aviles-Giga conjecture.

We give an overview of the Aviles Giga Conjecture and discuss a rigidity result for a non-elliptic differential inclusion that arises from the study of the conjecture. To our knowledge this is the only rigidity/regularity result for non-elliptic differential inclusions, we discuss open questions and further directions. (Received August 26, 2021)