Inverse Steklov spectral problem for curvilinear polygons

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I will present results of a recent preprint, joint with Stanislav Krymski, Leonid Parnovski, Iosif Polterovich, and David Sher. For a generic curvilinear polygon with angles less than pi, we prove that the asymptotics of Steklov eigenvalues obtained previously in arXiv:1908.06455, determines, in a constructive manner, the number of vertices, and the properly ordered sequence of side lengths, as well as the angles of the polygon, up to a certain equivalence relation. I will also present counterexamples to this statement if the generic assumptions fail.