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Geometric Realization of Cyclic Branched Covers as Infinite Regular Polyhedra.

In this talk, we relax Coxeter-Petrie's definition of infinite regular polyhedra. With the weaker definition we are able to construct more polyhedra whose polyhedral metrics induce conformal structures. We will provide examples that are conformally equivalent to known surfaces such as Schoen's I-WP surface and Kepler's small stellated dodecahedron. If time permits, we will present one way of classifying such polyhedra. (Received July 11, 2017)