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p-adic Origamis

Abstract As a combinatorial object, an origami can be defined by gluing plane squares. Equivalently, an origami is a finite covering of a torus which is ramified over at most one point. Thinking of a torus as an algebraic curve of genus 1, this definition works over any field. Over the field of *p*-adic numbers such a covering can arise from an inclusion $\Gamma \leq G$ of two carefully chosen finitely generated discontinuous subgroups of PGL(2). In the talk we present, following the thesis of Karsten Kremer, examples of *p*-adic origamis obtained this way. In the case that the covering is defined over a number field, we also address the question of identifying the corresponding complex origami defined by squares.