1086-K1-1152   **Kevin Lee*** (`kevin.lee@normandale.edu`), Bloomington, MN. *Intriguing Tessellation Animations in Real Time.*

Modern computer graphics cards have graphic processing units that can do several hundred million calculations per second. I will discuss and demonstrate my new algorithms that exploit this power to generate animations for creating Escher-like tessellations (tilings) of the plane. The animations dramatically show the geometry behind the tessellations. I will also briefly discuss how homogenous coordinates, linear algebra, computational geometry, computer graphics, and data structures all come together to create the algorithms behind the animations. My previous tessellations programs include TesselMania and Tessellation Exploration. (Received September 19, 2012)