1145 - 11 - 2633

Holley Friedlander* (friedlah@dickinson.edu), Elena Fuchs, Piper H, Catherine Hsu, Katherine Sanden, Damaris Schindler and Katherine Stange. Almost Prime Components in Apollonian Circle Packings. Preliminary report.

Apollonian circle packings (ACPs) are obtained by repeatedly inscribing circles into the triangular interstices of a configuration of four mutually tangent circles. If the four initial circles have integer curvature, then so will all of the circles in the packing; in this case we say that the packing is integral. Sarnak showed that any primitive, integral ACP has infinitely many circles of prime curvature, and there are a number of interesting results on prime components of ACPs. In this talk, we discuss problems and partial results concerning the almost prime components. This project was initiated at the Women in Numbers 4 workshop. (Received September 25, 2018)