

A VIEW FROM INFINITY OF THE UNIFORM INFINITE PLANAR QUADRANGULATION

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The Uniform Infinite Planar Quadrangulation (UIPQ) is an infinite planar graph which is the local limit of uniform planar quadrangulations of size n . It has been introduced by Krikun in 2005 following a pioneer work of Angel and Schramm on triangulations. The geometry of this object is particularly interesting, for example the volume growth exponent is 4. In this talk we introduce a new construction of the UIPQ and deduce several geometric properties. For example an essential uniqueness of infinite geodesics reminiscent of the work of Le Gall on the Brownian Map. joint work in progress with L. Ménard and G. Miermont.