

Van Gogh meets Riemann



Suppose we put the painting *Café Terrace at Night* of *Van Gogh* on \mathbb{C} so that the height of the painting is π . Now tile the whole of \mathbb{C} by repeatedly reflecting in the straight lines along the border of the painting. Let us denote the color this gives to a point $z \in \mathbb{C}$ by $c(z)$. Then the image above is obtained by coloring $s \in \mathbb{C}$ with the color $c(\log \zeta(s))$. Here ζ is the *Riemann zeta function*, which is the subject of the most important open problem in mathematics today. The pole at $s = 1$ and the first “trivial” zero at $s = -2$ are visible in the picture.

—Bart de Smit, Universiteit Leiden, 2006

