**Friday 4 July 2014 at 14:15**
*Tea & Cookies starting at 13:00*
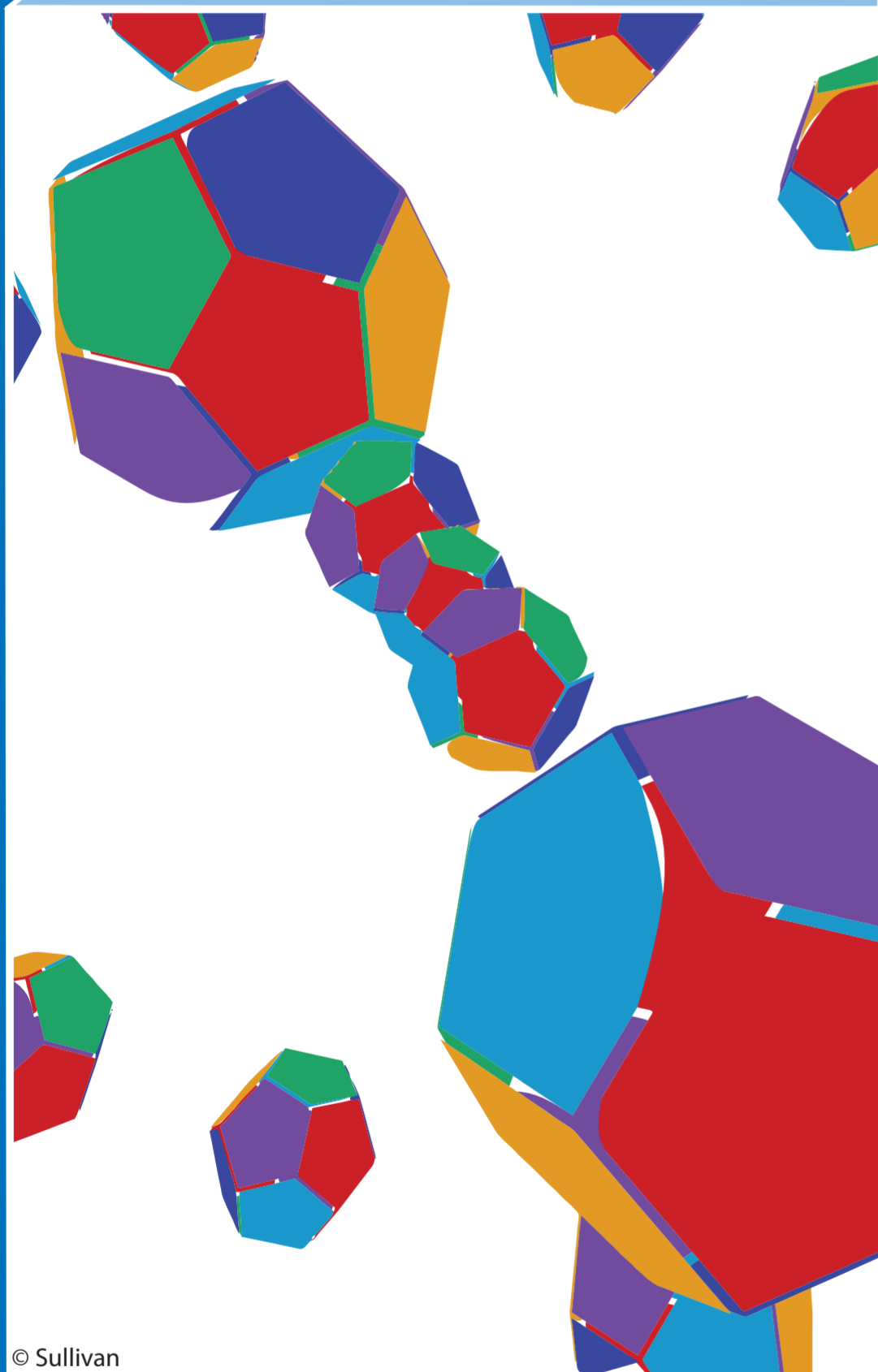
BMS Loft, Urania, An der Urania 17, 10787 Berlin

# Christian Bär (*U Potsdam*)

## Positive Curvature in 4 Dimensions

It is classically known which closed surfaces can be formed so that their curvature is positive everywhere: this is possible only for the sphere. For 3–dimensional spaces this question was answered by R. Hamilton in 1982 – again the 3–sphere is essentially the only example.

For 4–dimensional spaces, this question is still open. On the one hand, only two examples are known to admit positive curvature metrics; on the other hand, there are several other candidates where no such metric is known, but no currently available methods can rule this out. In his talk, Bär will explain the relevant notions, he will sketch the historical development, and also present some new results in dimension 4.

Christian Bär is professor of geometry at the University of Potsdam. His research areas include global analysis and differential geometry. Bär completed his doctorate in 1991 and habilitation in 1993 at the University of Bonn. In 1994, he became professor of mathematics at the University of Freiburg and, from 1999 to 2003, he was professor at the University of Hamburg. He began his current position in 2004, and was president of the German Mathematical Society from 2011 to 2012.

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