

Summary in English

Nils A. Baas and Christian F. Skau, *The Selberg interview III - The Riemann hypothesis and the trace formula* (Norwegian).

This is the third part of the interview with Selberg. This is more mathematical than the previous parts, discussing the significance of the Riemann hypothesis, and explicitly writing out the trace formula. Selberg acknowledges that the latter is probably his most important contribution, at least the one with the greatest number of applications. He also reveals some of the ideas he has had in the last decades to prove the Riemann hypothesis.

Patrik Lundström, *Pythagorean triplets in six different ways* (Swedish). Six different ways of parametrising Pythagorean triplets are presented, from the elementary arguments supplied by the Greek, via trigonometry to Gaussian integers and applications of Hilbert's 90th theorem.

Hans G. Killingbergtrø, *Parallel axial helices in the double winding surface* (Norwegian).

The contour of the shade caused by parallel light-rays falling on a winding surface forms a helix, cut out by an eccentric cylinder containing the axis of the surface. The presence of such helices, as opposed to the obvious concentric ones, cut out by cylinders whose central axis coincide with that of the surface, seems not to have been pointed out previously in the literature.

Morten Eide *Tangent Circles and tetracyclic coordinates* (Norwegian).

A natural angular distance between circles is introduced, leading to a representation of circles as vectors in a 4-dimensional space (tetracyclic), going back to Darboux (and Clifford). This is applied to prove the so called Arbelos theorem, as well as the theorem of Pappus and to give relations between the radii of the eight circles tangent to three given ones.

Ulf Persson *Periodic decimal expansions* (Swedish).

Some elementary but striking properties of periodic expansions of fractions with periods of maximal length are discussed, such as the almost equidistribution of digits and combinations thereof.