

Summary in English

Ernst E. Scheufens, *Sum and integral representations for $\zeta(3)$ and related constants.* (Danish.) After some historical remarks about $\zeta(3)$ a new summation representation of $\zeta(3)$ and related constants is found using a Fourier series method. The summation representation is shown to be equivalent to some known integral representations.

Knut Meen, *Weibull in the drawer.* (Norwegian.) The article studies the probability distribution for the number of drawings necessary to obtain one pair, when the drawings are done without replacement from an urn containing n pairs (Feller's shoe problem.) An algorithm for computing the exact probability distribution is given, and an approximate formula, applicable for both small and large values of n , is presented. When $n \rightarrow \infty$ a Weibull distribution reveals itself. How well the approximate formula and the Weibull distribution behaves is demonstrated with some numerical examples.

Martin Raussen, *A second look at normal curvature.* (English.)

Gert Almkvist, *Strings in moonshine II.* (Swedish.) In this second part (the first part appeared in the previous issue) the author finds a condition on the coefficients of a 4th order differential equation such that the formula for the

Yukawa coupling should be valid. Some examples of higher order equations are given where the mirror map has integer coefficients. In the appendix a catalogue is given with all the known 4th order differential equations having integer mirror maps. It is remarkable that in all these 14 cases the n_d 's of the Yukawa coupling are also integers. All these examples have "Hodge index" $h^{1,1} = 1$.

Added in proof is one case of more complicated 4th order equations (having $h^{1,1} > 1$). It looks as if there are at least 14 such equations also having integer mirror maps and n_d .

Kent Holing, *When does the quartic equation have constructible roots? Additional comment on the Galois group.* (Norwegian.) This is a followup of a paper by the author in the previous issue. It discusses a method to calculate the Galois group of a monic quartic equation with integral coefficients when the equation is reducible over \mathbb{Z} . It is shown that the Galois group can then easily be determined given only the number of integral roots and the discriminant of the quartic equation. Together with the earlier paper (which treated the irreducible case of the quartic equation) this gives a complete method to determine the Galois group of a general quartic equation with rational coefficients, using conditions easily given by the coefficients of the equation.