

## Summary in English

**Henrik Kragh Sørensen and Helge S.Kragh**, *Longomontanus og cirkelens kvadratur* (Danish).

Longomontanus was a Dane living in the first half of the 17th century. He is mostly known as an astronomer and a disciple of Tycho Brahe, but he also dabbled in mathematics, being obsessed with the classical problem of the quadrature of the circle. He published a lot which was mercifully neglected by the international community until it came under scathing criticism of John Pell. In the paper his numerological musings in astronomy are related to his quadratures, some of his proofs are discussed along with Pells refutation of them, leading to a general analysis of the practice of mathematics at the time.

**Eggert Briem**, *Approximation i endelig dimensionale rum* (Danish).

The well-known Stone-Weierstrass claims that any real continuous function on a compact subset of  $\mathbf{R}^n$  can be uniformly approximated by the elements of an algebra which contains the constant functions and separates points. A particular case is that of polynomials. In the complex valued case one also need to add the condition of being closed under complex conjugation, as uniform convergences of polynomials are analytic. In the article a weakening of the multi-

plicative condition of the set of approximating functions is being discussed.

**Juliusz Brzezinski**, *Komposition av kvadratiska former - från Gauss till Bhargava* (Swedish).

The young Indian mathematician Bhargava recently presented a new way of looking at Gauss classical composition of integral quadratic binary forms, which has opened up the possibility of generalizing it systematically with applications to class-field theory. The article is an introduction to the works of Bhargava. In it the reader can learn about Gauss classical work, and in particular the correspondence between such forms and ideals in quadratic rings, which explains why it all should work. In the context of Bhargava trilinear maps can be associated with 'cubical' matrices which are being treated systematically.

**Ulf Persson**, *SO(4) och S<sup>3</sup>* (Swedish).

The 3-dimensional sphere can be thought of as a union of two solid tori glued along their boundaries. Those come from torus-fibrations, and this short note explores some elementary facts of how SO(4) operates on them with connections to Hopf fibrations and quaternionic multiplication.

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### Rättelse Normat 2007:2

Selmer blev mycket riktigt 86 år. Han föddes 1920 och dog därmed 2006, och inget annat år, som det tyvärr råkade stå i överskriften till Tverbergs runa över Selmer i förra numret. Denna fadäs beklagas djupt av huvudredaktören som ensam bär det fullständiga ansvaret.

*Ulf Persson*