

Summary in English

Helge Tverberg, *Ernst S.Selmer in memoriam* (Norwegian).

E.Selmer who was chief editor of Normat for a quarter of a century is chiefly known for the so called Selmer groups in connection with diophantie cubic equations, playing a crucial rôle in Wiles work on the Fermat Conjecture (see the article by L.Olson below). This is a short review of his life and work, an elaboration of a talk given at a memorial conference earlier this year.

Loren D.Olson, *Selmergroups - a historical review* (Norwegian).

This is an overview of different groups that occur in connection with the diophantine study of elliptic curves. Examples are of course not only the Mordell-Weil group and the Tate-Shafarevich groups but also of course the groups called Selmer groups which fit into the computation of the previous in a well-known short exact sequence.

Dan Laksov, *Linear maps and linear recursion* (Norwegian).

This paper studies the solutions to linear recursions as special linear maps of rings of polynomials in one variable. This is so to speak the dual point of view to what is to be found in the literature and gives a natural connection to the general theory of linear recursion. In this way the results appear in a clearer light, the proofs become simpler, and one is naturally led to generalizations

of the theory. In particular it transpires that the restriction to finite fields, or more generally to periodic sequences, which are predominant in the literature, is unnecessary for most considerations. This is illustrated by a detailed presentation of the theory of multigrams.

Jan-Erik Björk och Jan Boman, *The wrench of Fuglesang and encounters in space* (Swedish) .

Fuglesang is the first Swedish astronaut and his space-walk attracted a lot of attention in Swedish media. In particular it was rumoured that he dropped his wrench during the walk, and speculation was rife whether it would return to the space ship after having circled the Earth. In the article this question is investigated in detail through celestial mechanics with perturbation theory. Furthermore it discusses how marginal the influence of distant bodies such as the Moon and the Sun would be on the problem. The conclusion is that it is highly unlikely that the tool would pass sufficiently close to the space ship after completing an orbit for it to be possible to retrieve it.

Bengt Ulin, *Triangles of the same circumference and area* (Swedish).

Triangles up to congruence form a 3-dimensional space, and specifying circumference and area means fixing two parameters. One hence expects to find a 1-dimensional family. In the article this is approached from a classical perspective with explicit calculations of examples. One also notes that for right-angled triangles the conditions uniquely determine the triangle, while there will be two isocles triangles with specified circumference and area, one of which has an angle in excess of sixty degrees. In the degenerate case, the specifications determine the equilateral triangle.