NEWSLETTER

Department of Mathematics & Statistics

Friday, 30th August 2002

This Week: **VISITORS**
DERRICK BREACH ROOM
PUBLISHED PAPERS
PROBLEM CORNER

DEPARTMENTAL VISITORS

Two Erskine Visitors due to arrive are Prof. John L Casti from Technical University of Vienna and Dr. Granville Tunnicliffe-Wilson from Lancaster University. They are arriving on 7th and 8th September 2002 respectively.

DERRICK BREACH ROOM

Peter Hilton and Jean Pedersen have completed categorizing the Derrick Breach collection of polyhedra. Members of the department are invited to take a look at their work which presents the collection in an ordered mathematical manner.

We are very grateful to Peter and Jean for their work in sorting out the collection. Their efforts mean that the people visiting the room can appreciate the various mathematical concepts interest in polyhedra.

The presentation will now be a focal point for visitors to the Department and we hope that local school pupils and teachers will be encouraged to pay us a visit. The collection is perhaps the best of some three such collections around the world. The various photos of Derrick and the obituaries that I had mounted, are now all installed in the room.

Bob Broughton

PUBLISHED PAPERS

Steinke, G.F. On 2-dimensional Laguerre planes of shift type.
Arch. Math., v78, 2002: 485-496.

Gunter Steinke

PROBLEM CORNER

There were no solutions to the full extended problem last week. But as it is quite a fascinating little result, I break with usual practice and give the solution anyway.

The circle

$$/x 2 \tfrac{1}{2}\text{0} 2\ y^2 \mid \tfrac{1}{4}\Delta 5^{(\frac{n}{2}41)}$$

goes through exactly n lattice points if n is even, and

$$(x 2 \tfrac{1}{4})^2 2\ y^2 \mid \tfrac{1}{6}\Delta 5^{n41}$$

does it when n is odd.

This week

Writing the harmonic sums as $H_n \mid 1 2 \tfrac{1}{2} 2 \tfrac{1}{3} 2 \ldots 2 \tfrac{1}{n}$;

Determine $\overset{m}{\underset{k \mid 1}{\text{——}}} H_{2k} 4 (m 2 \tfrac{1}{2}) H_{2m}$

Bill Taylor