

### **Haya Freedman (1923-2005)**

We are sorry to report the death of Dr Haya Freedman on 19th July of a heart attack following a long illness.

Haya Freedman was a member of the Sub-Department of Mathematics, (as it was then), at LSE for many years until her retirement in 1989. She carried out research in abstract algebra.

Her funeral took place on 29th July (a private family-only occasion).

Haya Freedman was born in Lvov (then in Poland) in 1923. She moved to Israel (then Palestine) in 1933 where she completed her education obtaining an M.Sc. from the Hebrew University in Jerusalem. Her degree thesis in abstract algebra was written under the supervision of Dr. J. Levitzki. She married a mathematical colleague, Arye, in 1948, moved to England in 1956 and did her Ph.D. at Queen Mary College under Prof. K. Hirsch. She took up a post in the Mathematics Department at Birkbeck College in 1965. When the late Professor Cyril Offord was invited to set up a Mathematics sub-department at LSE in 1966 Haya Freedman joined him here in 1967. She was thus a member of our department from its inception.

Haya's published research was in the general area of ring theory. She touched on subjects like torsion-free rings, the ring of endomorphisms of an Abelian group and its relation to the automorphism group.

She is remembered as an exceptionally gifted teacher. This was based on an uncanny ability to evaluate the qualities of a student, which talents were also used in admissions interviews (even to the Economics Department!). Haya developed a teaching method that made the students much more active participants in the learning process. This was achieved through seminars in which students explained to their colleagues original papers in mathematics. In the days of the BSc (Econ) degree at LSE, when the Department of Statistics and Mathematical Science offered a Mathematics degree, her third year course included an examinable project (in Algebra). Projects were selected by her according to student ability. She had quite a reputation for making mathematicians out of the talented students and many would say that the best way of obtaining a first class degree was to be a tutee of Haya's. These included a series of very good students indeed (some of whom had switched from Economics to Mathematics), with at least one getting the University of London Prize in Mathematics, if memory serves me correctly. One example of Haya's mentoring is Norman Fenton who is now Professor of Computer Science at Queen Mary, University of London. Others of her former students also teach mathematics at universities both in this country and in the U.S.A., while others now work in less obvious professions, such as Law.

She is remembered by her colleagues also outside of the formal life of the Department for her often remarkable gestures of great kindness.

She leaves behind her husband Arye and two daughters Daphne and Josephine, and will be greatly missed.

**Professor Adam Ostaszewski**  
**Department of Mathematics**  
**LSE**