Report

According to my original proposal, my aim in this visit was to work on problems of set-theoretic topology with Prof. Mirna Dzamonja at the UEA. We actually included in this work Dr Charles Morgan who has joined the UEA recently.

We have carried on our earlier research into questions about the connections between discrete subspaces of the square of a compact space K and the Banach space $C(K)$ of all continuous functions on K.

As a new topic, we considered the very interesting and apparently very hard problem of Alas and Wilson if there is a ZFC example of a non-compact space in which every discrete subspace has a complete accumulation point. We noticed that the natural counterexample of a countably compact a non-compact space of countable spread, that exists e.g. under CH, cannot exist in ZFC because it must contain an S-space.

This lead us to trying to find examples that are higher cardinal versions of S- and L-spaces. A related problem that we worked on is the other known open problem if such higher cardinal versions of S- and L-spaces that are also compact could be obtained in ZFC.

During my visit I gave two lectures at UEA in Norwich, one in their Logic Seminar and one general talk at the department's Pure Mathematics Seminar. I also gave a general talk at UCL and met some mathematicians in Cambridge.

Istvan Juhasz