

Scientific report

Michael Farber

Visit to Technion Haifa during June 13 - 21, 2012

1. Purpose of the visit:

The main purpose of my visit to Technion Haifa was to be engaged into a joint research project with Prof Roy Meshulam. The topics we discussed were centred around the problem of finding integral homology of random 2-dimensional complexes in the linial – Meshulam model.

During the visit I also gave a talk on the Topology seminar at the Technion.

2. Description of the work carried out during the visit:

During the visit we had many face to face discussions with Professor Meshulam and discussed several possible approaches to the problem. We hope to be able to use the early result of Gil Kalai about Q-trees, which, on one hand, is very inspiring and suggestive, and, on the other hand, it operates within different probabilistic model and this fact makes its direct utilisation questionable.

During the visit I also had some interesting and helpful discussions with Prof S. Weinberger (University of Chicago) who independently visited the Technion at the same time.

3. Description of the main results obtained:

During my visit to the Technion we found several possibilities for continuing our research. We need more time to check if these potential routes to the solution are effective

4. Future collaboration with host institution:

We plan to continue our collaboration communicating in the meantime via the email, skype and phone. Besides, we hope that Prof Meshulam will visit Warwick in September this year to continue our research.

5. Projected publications/articles resulting or to result from the grant.

No publications are planned at this stage.

6. Other comments

None.