

**Rapport par Caucher Birkar**  
**sur le cours de géométrie algébrique donné à l'Université Salahaddin**  
**(Erbil, Kurdistan, Irak)**  
**du 25 novembre au 3 décembre 2010**

*Hewler(Erbil) visit:*

I visited Salahaddin University in Hewler from 25 November to 3 December 2010. The highlight of my visit was a short course (5 lectures) on algebraic geometry. In this course I introduced some basic notions and theorems of algebraic geometry such as affine and projective varieties, rational and regular maps, singularities, divisors, and the Riemann-Roch theorem. Numerous examples were given to illustrate these notions. On average 20-30 people attended the course who were mostly faculty members and graduate students. Several participants came from a university in Dila.

In addition to the above lectures I gave a general seminar for undergraduate students about mathematics and its role in the society. In particular, I tried to convince them that there are many good reasons to study pure mathematics even if applications are not immediate.

Among the several issues that I discussed with the head of mathematics department were the undergraduate curriculum, the conditions of the library, admissions abroad, journal subscriptions, Kurdistan mathematicians visiting Cambridge, supervising graduate students, etc.

I had the chance to talk to many students in particular about effective ways of applying for graduate studies abroad in light of the student scholarships provided by the Kurdistan and Iraqi governments.

I certainly enjoyed my visit specially because of the warm welcome I received from the faculty members of the maths department and from the student.

I believe that it is in the best interest of the university to concentrate on creating strong undergraduate and master programs.

*Caucher Birkar 12 December 2010*