

## **MODNET: Newsletter 2**

### **17 June 2005**

MODNET is a Marie Curie Research Training Network in Model Theory and Applications funded by the European Commission under contract number MRTN-CT-2004-512234. It will run for 4 years from 1 January 2005 to 31 December 2008, and is designed to promote research and training in Model Theory and its applications to other branches of Mathematics.

These newsletters are distributed electronically to MODNET members and contain items on the administration of the Network as well as reports of the scientific activities of the Network such as visits funded by MODNET, new appointments made, announcements of new results, preprints and publications, forthcoming conferences .... Items for inclusion in the Newsletter should be sent to the Network Coordinator, David Evans (d.evans\_at\_uea.ac.uk).

#### **Contents:**

1. Preprint server
2. Appointments made and available positions
3. Appointments for 2006
4. Committees
5. Network events
6. Announcements

#### **1. Preprint server**

Our Web site

<http://www.logique.jussieu.fr/modnet/>

has been updated. In particular, there are now links to a variety of lecture notes and introductory surveys and to a preprint server. More details are available at

<http://www.logique.jussieu.fr/modnet/publications/>

Please do post your preprints here. As well as being a tremendously useful resource for those with an interest in Model Theory, the server will help us to give a strong impression of the work that is being carried out in the Network. We will be happy to accept papers from outside the Network if they are recommended by a Network member.

## 2. Appointments made and available positions

### ▪ Experienced researchers:

The following appointments have been made:

- Tristram de Piro has been appointed to the 12 month ER position in the team at Camerino, starting 1 July 2005
- Piotr Kowalski has been appointed to the 12 month ER position at the team in Oxford, starting 1 July 2005
- Cedric Rivière has been appointed to the 12 month ER position at the team in Paris, starting 1 October 2005.

### ▪ Early-stage researchers

Offers have been made and are in the process of being finalised for the 3 year PhD positions at UEA, Paris, Oxford, Barcelona and Berlin. The 3 year PhD position in Freiburg is still available. Please direct any potential candidates to the website

<http://www.logique.jussieu.fr/modnet/positions/PhD.html#Freiburg>

## 3. Appointments for 2006

The Network plans to make up to 8 appointments to Experienced Researcher positions in 2006. The precise distribution of these positions and the application procedure will be discussed by the Scientists in Charge of the various teams at a meeting in early July 2005. It is hoped that the Network will invite applications for these positions in mid-July.

## 4. Committees

The current membership of the Network committees is:

### ▪ Steering committee:

- Chair: David Evans (UEA), ex officio as Network Coordinator
- Elisabeth Bouscaren (Paris), ex officio as Chair of Appointments Committee
- Frank Wagner (Lyon), ex officio as Chair of Training Committee
- Boris Zilber (Oxford), ex officio as Chair of Scientific Committee

### ▪ Appointments committee:

- Chair: Elisabeth Bouscaren (Paris)
- Angus Macintyre (Queen Mary, London)
- Yaacov Peterzil (Haifa)
- David Evans (UEA), ex officio as Network Coordinator

- **Training committee**

- Chair: Frank Wagner (Lyon)
- Enrique Casanovas (Barcelona)
- Carlo Toffalori (Camerino)
- Françoise Point (Mons)
- David Evans (UEA), ex officio as Network Coordinator

The **scientific committee** (Chair: Boris Zilber (Oxford)) is still to be decided.

### 5. Network events

The first MODNET training event is:

- Summer school in Leeds (UK), December 13-18, 2005. The provisional programme is to include short courses on: intermediate level model theory; algebra and geometry; introductory stability theory.

Other planned training events and topics are:

Year	Event	Organising team	Topics
2006	Summer school	Freiburg	<ul style="list-style-type: none"> <li>▪ Finite model theory</li> <li>▪ Stability Theory</li> <li>▪ Introductory algebraic geometry</li> </ul>
2006	Training workshop	Lyon	<ul style="list-style-type: none"> <li>▪ Algebraic complexity</li> <li>▪ Simplicity theory</li> <li>▪ Hrushovski constructions and complex analytic structures</li> </ul>
2007	Summer school	Camerino	<ul style="list-style-type: none"> <li>▪ Introduction to o-minimality</li> <li>▪ Model theory of modules</li> <li>▪ Model theory of groups</li> </ul>
2007	Training workshop	Berlin	<ul style="list-style-type: none"> <li>▪ Model theory of fields</li> <li>▪ o-minimality</li> <li>▪ Applications of model theory of fields</li> </ul>
2008	Training workshop	Mons	<ul style="list-style-type: none"> <li>▪ Motivic integration</li> <li>▪ Model theory of valued fields</li> <li>▪ Connections between model theory and number theory</li> </ul>
2008	Summer school	Manchester	<ul style="list-style-type: none"> <li>▪ Applications of finite model theory in computer science</li> <li>▪ Algebraic groups and groups of finite Morley rank</li> </ul>

Research workshops will be organised by teams in Oxford, Paris and Haifa in 2006, 07 and 08. A mid-term conference will be organised in 2006 by the team in Turkey, and a final conference will be organised in 2008 by the team in Barcelona.

## 6. Announcements

- TRIMESTER ON “REAL GEOMETRY” , Centre Emile Borel - Institut Henri Poincaré, Paris, France, September 12 - December 16, 2005.

The subject of Real Geometry is divided (somewhat artificially) into four broad sub-disciplines; needless to say, these have strong interactions with one another. Namely:

- 1) Topology and geometry of real algebraic varieties.
- 2) Semi-algebraic, subanalytic and o-minimal geometry; singularities.
- 3) Real algebra, model theory, quadratic forms.
- 4) Algorithms, complexity and effectivity in real algebra and geometry; applications.

The trimester will mainly be structured around three types of activity:

- (First year) post-graduate courses
- Advanced mini-courses and series of lectures.
- Two specialized colloquia.

Full details can be found on the webpage:

<http://name.math.univ-rennes1.fr/michel.coste/Borel/realgeompres.html>

- Preliminary announcement: Zoé Chatzidakis (Paris 7) will give a two-week course on the model theory of pseudofinite fields at the Universidad Autónoma de Madrid in November 2005.