

ANNOUNCEMENT OF EAGER

P.R.A.G.M.A.T.I.C. 2004 at University of Catania

(Promotion of **R**esearch in **A**lgebraic **G**eometry for **M**AThematicians in **I**solated **C**entres)

(First announcement)

PRAGMATIC is a project, sponsored by **EAGER**, for stimulating research in Algebraic Geometry among young people, especially those living in isolated centres or peripheral universities all over Europe. For this purpose, every year, a group of experts will suggest problems in some specific field and will give lectures and seminars and will have individual discussions with the participants in order to try to attack and to solve these problems.

For more on this project check the web page:

<http://www.dmi.unict.it/~ragusa/>

At the end of all the activities of Pragmatic the results that the participants obtain will be reproduced in a special issue of the journal "Le Matematiche".

In the period **25 August-14 September 2004**, at the Mathematics Department of the **University of Catania**, a new edition of this school of research **Pragmatic 2004** will be held.

Teachers: Prof. Lucia Caporaso (University of Roma III) and Prof. Olivier Debarre (Universite Louis Pasteur Strasbourg)

Collaborators: Cinzia Casagrande, Gianluca Pacienza, Mihai Paun

Theme of research: *Hyperbolicity of complex varieties.*

Scientific activity.

In Pragmatic 2004 we intend to suggest problems around the general theme of hyperbolicity of complex varieties. There exist several distinct notions of hyperbolicity: analytic hyperbolicity (in the sense of Kobayashi), algebraic hyperbolicity (in the sense of Demailly), negativity of the tangent bundle, arithmetic hyperbolicity (in the sense of Lang). There are strong, intriguing similarities between these different theories, but most of the direct connections remain conjectural. We will introduce these notions, explain the different implications between them and go through some of the principal results.

Hyperbolic varieties have been the object of intense study in the last few years, and there have been spectacular developments (such as the proof of the Kobayashi conjecture for very general surfaces in the projective space) which we will explain. We will also review some of the many constructions of examples that can be found in the literature (such as analytically hyperbolic projective hypersurfaces).

The main conjectures about arithmetical properties of hyperbolic varieties are open; however, modern techniques of moduli theory have been used to understand their impact on the distribution of rational points on curves. We shall describe the moduli space of

stable curves and explain how some of its features can be applied to various questions that directly relate to arithmetic hyperbolicity.

The techniques needed are rather varied, ranging from holomorphic function theory to algebraic or arithmetic geometry.

Pragmatic will grant about 15 **fellowships** which will permit the fellowship holders to attend the above lectures and seminars, will pay the full cost of board and lodging in Catania for the entire period of the school and will also cover some travel expenses.

These fellowships will be awarded, essentially, to young European researchers, say at the pre-postdoctoral level, with preference given to those belonging to geographically isolated locations.

In addition the Committee of **Pragmatic** will admit to the courses and seminars some other people who can be supported by their own institutions. The Pragmatic Committee will offer help in finding suitable accommodations at a reasonable cost for these participants.

The Co-ordinator of **Pragmatic** is Prof. Alfio Ragusa (University of Catania). Other local organizers are:

Rosario Strano, Renato Maggioni, Salvatore Giuffrida, Giuseppe Zappalà.

People who wish to be considered either for a fellowship or for admission to the courses should fill out the enclosed **application form**, which should then be sent to **Prof. Alfio Ragusa** at the following address:

E-mail: Ragusa@dmi.unict.it

or by ordinary mail to: Prof. Alfio Ragusa, Dipartimento di Matematica, Viale A.Doria 6, Catania-95125-Italy.

A fee of 150 EURO (payable at registration) will be requested to each participant (note that the **fellowship will cover the cost of this fee**).

The deadline for applications is **15 May 2004**.

The Committee of Pragmatic will decide about fellowships and admissions by **June 2004** and will inform all the applicants of the outcome.

Moreover a list of participants and all the activities of the school will be spread by **EAGER** net.

Interested people who need more information about **Pragmatic** can contact any member of the local committee, using the following E-mail address:

sstrano, maggioni, giuffrida, zappalag (one of these)@dmi.unict.it

APPLICATION FORM TO PRAGMATIC 2004

Surname:

Name:

Male or Female:

Date of Birth:

Nationality:

Institution:

Academic qualification (Ph.D., Master,...):

Name of advisor:

Professional Status and Current Position:

Address:

E-mail:

Field of interest:

Estimate cost of travel to Catania:

If you have a Ph.D, when did you get it and where?

Reasons for wanting to participate in the session:

It is suggested that the applications include both a **recommendation letter** and a brief **Curriculum vitae**