

*Workshop on
Computational Commutative Algebra, July 2-7, 2011, IPM, Tehran, Iran*

CoCoA Tutorials

Massimo Caboara

*University of Pisa
Italy*

These tutorials will give some basic information about the CoCoA system. The first class will give an overview of CoCoA, especially the programming language and the basic mathematical functions.

The other three classes will deal specifically with the subjects taught in the school and will present more advanced problems and a way to solve them using CoCoA. The second class will be about Generic Initial Ideal Theory, and especially on the GIN computation. The third about Castelnuovo-Mumford Regularity, and the last about Homological Algebra, with emphasis on the computation a free resolution.

The level of this tutorial is introductory and no previous knowledge of CoCoA is needed.

You can download **CoCoA 4.7.5** from the site `cocoa.dima.unige.it`.