



UNIVERSITÀ
DEGLI STUDI
DI PALERMO

Dipartimento di Matematica e Informatica

Words
and
Automata
Research
Group

Seminar Announcement

Pure Two-dimensional Context-Free Grammars

Zbyněk Křivka, Brno University of Technology

Friday 11th April 2014, 11:30 a.m.

Room 7, Via Archirafi 34, 90123 Palermo

Syntactic models of picture generation have become established as one of the main areas of research in theoretical studies on digital pictures and image analysis. A variety of picture languages and corresponding defining devices have been introduced in the literature.

This one-hour talk overviews grammars as a generating formal model for two-dimensional (2D) rectangular languages. After short survey of established grammar models, it introduces pure 2D context-free grammars, their various variants and languages generated by these grammars. Several mostly recent results concerning their generative power and closure properties will be surveyed. In the last part of the talk, several new results for leftmost/uppermost variant of these 2D grammars will be demonstrated. In the conclusion, new open problems will be discussed.

For further information:

Gabriele Fici

T 091 238 91130

gabriele.fici@math.unipa.it

All interested people, in particular students, are invited to participate