

# $N$ -ary Subtrees of Galton-Watson Trees

**Ljuben Mutafchiev**

American University in Bulgaria, 2700 Blagoevgrad, Bulgaria  
and Institute of Mathematics and Informatics of the  
Bulgarian Academy of Sciences

`ljuben@aubg.bg`

June 15, 2011

## **Abstract**

A Galton-Watson family tree may contain  $N$ -ary subtrees, i.e. subtrees whose vertices have at least  $N$  children. We shall consider subtrees rooted at the ancestor of the Galton-Watson tree. Problems related to survival probabilities and height of  $N$ -ary subtrees will be discussed.