

Implementation of the VAS algorithm on Android OS

Antonis Berkakis and Alkiviadis G. Akritas

In this talk we present our implementation of VAS real root isolation method on Android OS. Our implementation is based on the C-library Giac, which has been developed by Bernard Parisse and which forms the basis of the Computer Algebra System Xcas. Our basic task was to get Giac working in Android's Java environment. This was achieved with the help of the open source IDE Qt Necessitas, mainly developed by Bogdan Vatra, which combines Android NDK (Native Development Kit) & Android SDK (Software Development Kit); we also used the android app service Ministro, which downloads the auxiliary libraries needed for the project. The result was a free App for Android smartphones that can be found at Google Play Store :

<https://play.google.com/store/apps/details?id=org.kde.necessitas.berkakis.realroots>

Moreover, if one is familiar with Giac, then our App offers a crude interface to all its functions.

Antonis Berkakis
University of Thessaly,
Department of Electrical and Computer Engineering
Volos, Greece
e-mail: aberkakis@gmail.com

Alkiviadis G. Akritas
University of Thessaly,
Department of Electrical and Computer Engineering
Volos, Greece
e-mail: akritas@uth.gr