

, a CONTInuation ENvironmenT

B. Sijnave, W. Govaerts* and Yu. A. Kuznetsov†

*Vakgroep Toegepaste Wiskunde en Informatica, Universiteit Gent
Krijgslaan 281 (S9), B9000 Gent, Belgium
e-mail : Bart.Sijnave@rug.ac.be*

Abstract

CONTENT is an interactive, multi-platform software package developed at CWI (Amsterdam) by Yu. A. Kuznetsov and V. V. Levitin, for numerical bifurcation analysis of dynamical systems defined by ODEs, PDEs and iterated maps.

In this talk, we will present a global overview of the features of CONTENT. It is designed to perform simulation, continuation and normal form analysis of dynamical systems appearing in research and engineering.

CONTENT is an open environment, with all C/C++ code modularly structured and well documented. An additional feature that makes CONTENT particularly useful for the development and implementation of various computational algorithms is its built-in ability to associate specific linear algebra routines to each system and solution type. We also mention the user-friendly interface (using VIBRANT, Virtual Interface for Biological Research ANd Technology of the National Center for Biotechnology Information), its easy portability, the good graphics support (both two- and three-dimensional) and the on-line hypertext help with figures as achieved assets.

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†Institute of Mathematical Problems of Biology, Russian Academy of Sciences, Pushchino, Moscow Region, 142292 Russia