

Summary of Projects Developed During 1996-2004

Study, Design, and Implement a Two Grid Solver for hp-Finite Elements, Integrated with an Existing Fully Automatic Energy Norm Based hp-Adaptive Strategy .

D. Pardo, L. Demkowicz ,

I developed a 1D, 2D, and 3D Two Grid Solver for hp-Finite Elements, suitable for a variety of elliptic and electromagnetic problems. This solver was integrated within a Finite Element package containing an hp self-adaptive strategy.

2000-2004. Status: 100% completed

Sponsors: U.S. Air-Force.

Software Development of an hp-Finite Element Package .

L. Demkowicz, D. Pardo ,

I collaborated in the development of a 1D, 2D, and 3D hp-Finite Element package suitable for a variety of elliptic and electromagnetic problems. This package includes a self-adaptive strategy, a multigrid solver, and a geometrical modeling package. A parallel version is currently under development.

2000-2004. Status: 100% completed

Sponsors: U.S. Air-Force.

Software Development in Visual Basic .

D. Pardo ,

I developed a user friendly software in the programming language Visual Basic, intended to be used as a learning tool for last year High-school students in Mathematics. This interactive software includes a variety of exercises as well as lessons in the subject of mathematics for high school students.

1996-2000. Status: 100% completed

Sponsors: none.