To Scientific Computing for Certain Classes of Mathematical Problems for Some Differential Equations

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Computational science (also scientific computing or scientific computation (SC)) (see Wikipedia) is „a rapidly growing multidisciplinary field that uses advanced computing capabilities to understand and solve complex problems. Computational science fuses three distinct elements:

· Algorithms (numerical and non-numerical) and modeling and simulation software developed to solve science (e.g., biological, physical, and social), engineering and, humanities problems

· Computer and information science that develops and optimizes the advanced system hardware, software, networking, and data management components needed to solve computationally demanding problems

· The computing infrastructure that supports both the science and engineering problem solving and the developmental computer and information science" .

 Among same works the book of A.Quarteroni and F. Saleri [1] which was published four times by Springer-Verlag from 2003 y., is defused and wide applicable. Unfortunately same phenomenon for the our educational processes remained without attention. Such type publications have an extensive auditorium with different education and a matter of taste (for this aim we cited [2]). Our works [3-4] would be been in this direction too, but the manuals same [1] kind have new important value especially

for practice. In this connect on this conference we will present the materials which evidently extend and refined a corresponding well-known methodology for some class of boundary value problems for differential equations without narrowing admissible classes and recommended to users an optimal and logical lightly schemes with MATLAB and design. The possibility of generalization and improvement of some other parts of [1] follows immediately from [3-4]. The presenting in this report data and design calculated by Z.Vashakidze.

References

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