

# On the Developement of Numerical Algorithms: *A Personal Voyage*

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## **Abstract**

For over 40 years, I have been actively involved in developing numerical algorithms. The methods developed came about through the need of solving problems which often came from applications. Interestingly enough, each method often led to the need of others. In this talk, I will describe how these algorithms were developed sequentially.

Here are some algorithms/methods I shall describe.

1. Cyclic Reduction
2. Fast Poisson Solvers
3. Domain Decomposition
4. Generalized CG
5. Bidiagonalization of Matrices
6. Singular Value Decomposition

There are others and I will welcome questions.