Fortran@50

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SC07 Panel
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Topics and Panelists

- Brief historical perspective: Fran Allen
- Fortran Compilers: David Padua
- Application / user viewpoint: Henry Tufo
- Architectural impacts of Fortran: John Levesque
- Future of Fortran: Richard Hanson
- Questions from audience: 15 minutes

“In the beginning there was Fortran.” Jim Gray
Fortran Project (1954-1957) Goals

- Increase user productivity
- "...produce programs almost as efficient as hand coded ones and do so on virtually every job."
  (John Backus)

THE FORTRAN GOALS BECAME MY GOALS
The Fortran Language and Compiler

- Delivered April 15, 1957 for IBM 704

- Some compiler features:
  - Beginnings of formal parsing techniques
  - Intermediate language form for optimization
  - Control flow graphs
  - Common sub-expression elimination
  - Generalized register allocation - for only 3 registers!

- Spectacular object code!!