

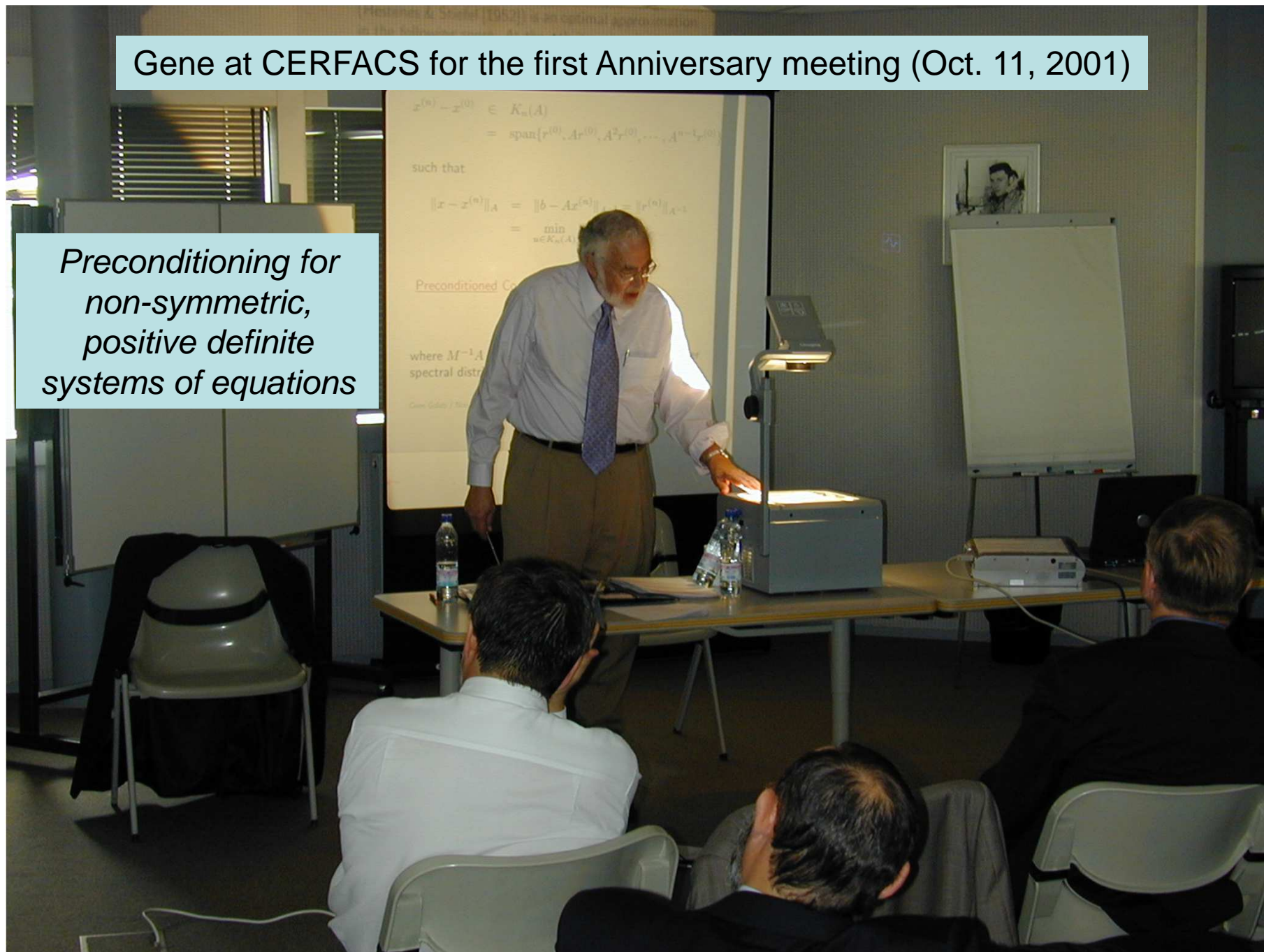


# Gene around the world at CERFACS

February 29, 2008

Gene at CERFACS for the first Anniversary meeting (Oct. 11, 2001)

*Preconditioning for  
non-symmetric,  
positive definite  
systems of equations*



$$x^{(n)} - x^{(0)} \in \mathcal{K}_n(A) \\ = \text{span}\{r^{(0)}, Ar^{(0)}, A^2r^{(0)}, \dots, A^{n-1}r^{(0)}\}$$

such that

$$\|x - x^{(n)}\|_A = \|b - Ax^{(n)}\|_A = \|r^{(n)}\|_A \\ = \min_{w \in \mathcal{K}_n(A)} \|b - Aw\|_A$$

Preconditioned Co

where  $M^{-1}A$   
spectral distr

Gene Golub / CERFACS

Gene at CERFACS for the second Anniversary meeting (Oct. 11, 2007)

*Scientific Computing and  
Numerical Linear Algebra  
(Matrix Computations)*



Gene and Iain at CERFACS for the second Anniversary meeting (Oct. 11, 2007)



Gene and friends at CERFACS for the second Anniversary meeting (Oct. 11, 2007)



Gene and Algonauts at CERFACS for the second Anniversary meeting (Oct. 12, 2007)

