

# Simulation of Electrophotographic Development

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## **Abstract**

Developer motion and the development process were simulated for a two-component electrophotographic developer containing hard magnetic carrier and non-magnetic toner in the field of a rotating magnetic core. The simulation was performed with C++ code, using parallel processing resources on the Velocity cluster of the Cornell Theory Center. Results show interesting behavior characteristic of two-component development with a rotating magnetic core that can be contrasted to that of conventional toning systems having fixed magnets.

## **Biography**

**Ulrich Mutze** is a physicist with Heidelberg Digital Finishing GMBH in Muehlhausen, Germany. He received the M.S. degree in physics from the University of Munich in 1968 and the Ph.D. degree in 1971, also from the University of Munich. Since 1984 he has held positions in R&D with Kodak AG and Heidelberg, transitioning in 1999 to Heidelberg Digital Finishing GmbH near Stuttgart, Germany. He is member of the International Association for Mathematical Physics and of the Deutsche Physikalische Gesellschaft.