

# **Evolution of the Optics of the Modern Laser Printer**

*Larry Hubby  
Hewlett-Packard Laboratories  
Palo Alto, California*

## **Abstract**

Since its introduction as a commercial product in the late-1970's, the laser printer has evolved into a broad spectrum of devices. Sampling resolutions 3-8 times higher than early products are now commonplace, while the price of the least expensive units has been reduced more than three orders of magnitude, with further improvements in both areas yet to

come. One of the key contributors to this phenomenal improvement in cost/performance has been the design of the laser scanning optics. In this talk, I will describe, from an optical system design point of view, many of the barriers that had to be overcome and the solutions that have been found to counter them, some the result of design cleverness and some the result of straightforward manufacturing muscle.