



## High-Def Goes Mainstream

**Sandra Benedetto, Pioneer Electronics**  
**Michael Isnardi, Sarnoff Corporation**

Is this finally "the year of HD?" High-definition video has been coming for a while now: the Consumer Electronics Association estimates that flat-panel TVs (LCD or plasma) have reached 10 million U.S. households, with more than half (55%) of these homes also reporting HDTV ownership. You now can watch TV in HD over the air, or via digital cable, or by satellite, or over the broadband Internet. You can watch movies in HD with the new Blu-ray and HD DVD next-generation optical disc formats. And you even can record HD on some digital video recorders. Even better, you can make your own HD productions, by shooting with the new HDV camcorders (available at near \$1,000). This is not just for pros: you can edit on today's computers and laptops, using mid-range and now even consumer software.

But HD also brings confusion, with multiple digital video and audio formats. Is TV better in 1080i or 720p? Is HDV "real" HD? Do you need 5.1 or even more audio channels? Whether you're ready to step up to a widescreen home theatre experience, or interested in shooting video in HD, this presentation will arm you to deal with the coming HD world.

**Michael Isnardi** of Sarnoff first will discuss the proliferation of HD creation and digital media formats. He'll explain the technology and explore the range of paths for broadcasting and delivering HD content. He will also cover technical issues related to reception and display of H/DTV, and talk about PC-based H/DTV products and the emerging 1080P/60 display and production format.

**Sandra Benedetto** of Pioneer then will give a brief overview on the history of optical disc and how storage capacity has allowed the move from SD to HD video. She will provide a snap-shot of consumer market trends for high definition video displays and the growing need for HD content. And she will discuss Blu-ray Disc, one of the new high definition videodisc formats, its major features and function and its first year on the market. She will review the variety of applications on Blu-ray and explore what the future holds for blue laser for high definition and optical storage.

**Dr. Michael Isnardi** is a Distinguished Member of Technical Staff at Sarnoff Corporation based in Princeton, NJ. He has managed and contributed to Sarnoff's video technology projects for over twenty years, and has authored or co-authored 23 papers and is inventor or co-inventor on 31 awarded U.S. patents in video and compression. He is a Senior Member of IEEE, a member of SMPTE and represents the IEEE on the ATSC Board of Directors.

**Sandra Benedetto** is the Director of Product Management & Sales Engineering for the Industrial Business Division at Pioneer Electronics USA, Inc. Sandra has worked in product planning and content and application development for Blu-ray, DVD, CD-ROM and LaserDisc technologies. She is an expert in the application of interactive video and optical disc technology for professional, industrial and educational markets.

Date: Thursday, December 14, 2006, 8:00 pm. (Refreshments at 7:30 pm.)  
Place: Sarnoff Corp., Routes 1 and 571, Princeton, NJ  
Information: Rebecca Mercuri (609) 587-1886, Dennis Mandl (908) 582-7086  
On-line info: <http://www.acm.org/chapters/princetonacm>

All ACM / IEEE-CS meetings are open to the public. Students and their parents are welcome. There is no admission charge, and refreshments are served.

A pre-meeting dinner with the speaker is held at 6:00 p.m. at Ruby Tuesday's Restaurant on Route 1. Please send email to [princetonacm@acm.org](mailto:princetonacm@acm.org) in advance if you plan to attend the dinner.

