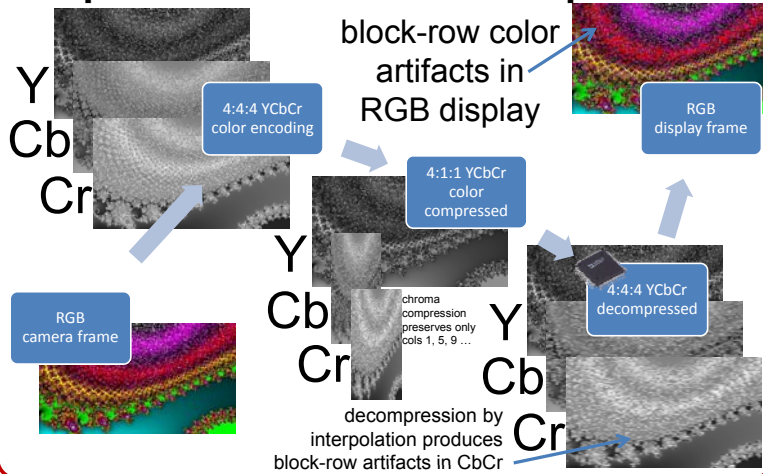


# Chroma Upsampling from Motion

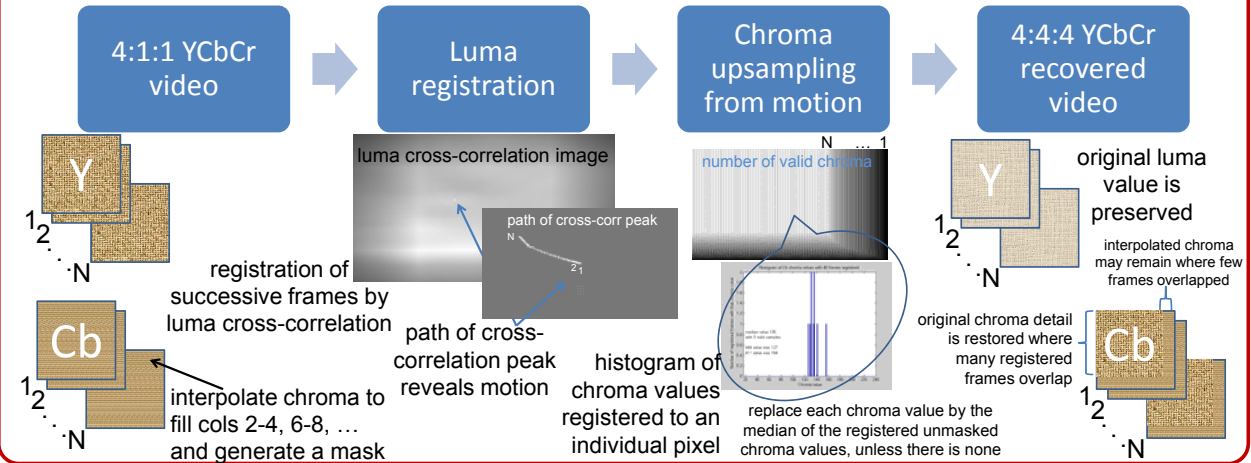
John V. Sandusky

Department of Electrical Engineering, Stanford University

## Improve 4:1:1 YCbCr Decompression



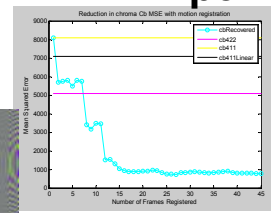
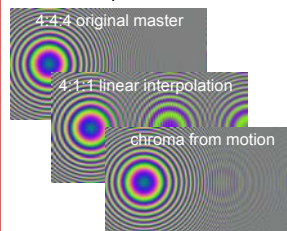
## Chroma Upsampling from Motion Algorithm



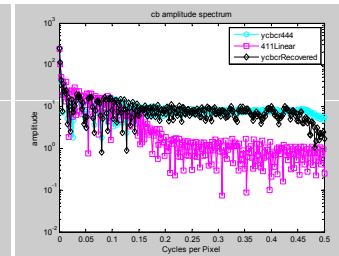
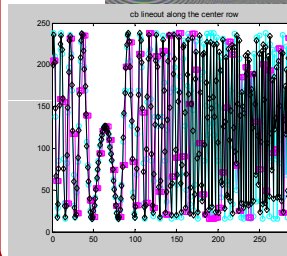
## Related Work and Key Issues

- Altera motion-adaptive de-interlacing uses a buffer four fields deep
- MPEG interframe compression has emerged as the consumer standard
- Apply chroma upsampling from motion prior to MPEG conversion, to obtain optimum quality at the expense of effort
- Practical implementation would require moving object segregation and tracking

## Color Zoneplate Quantitative Analysis



## Experimental Results



substantially better fidelity to color detail

