Comps Notes

NEEDS THEME!

Abstract stronger – mention theme and specific technologies.

Abstract and introduction are redundant. Add ascii table in appendix and cite.

Fix latex spacing.

Define what density is.

Add information on interference. Co-propagating beams at a (non-normal incidence)? Holography is interference. Can do math stuff for holograms in optical disks sections.

Be clearer with descriptions.

Need more sources. First half uses pretty much one source.

Is beam pulsed or is continuously read for optical disks?

Describe figure 2. More detailed caption. Figure, with captions, should be able to stand alone.

Derive equation 1 on page 5. Bessel function. Define Numerical Aperture.

Have different sections: disk layers, diffraction. Introduce these sections and how they would be useful.

Italicize variables even when not in paper.

At the end of each media, think about what I want people to get out of the section.

Try web diagrams with concepts.

Find figure 3 in a log scale or increase the contrast (not visible when printed).

Have figure 3 in a and b and have power in other rings and why we can ignore the other rings.

Introduce cd numbers on page 6 earlier or have a table to compare.

Have two row tables with headings and info on one media in each section then have a table at end of disks with all info.

Hard to make 405nm wavelength lasers. Hard time to get to blue lasers.

Add more information in captions Fig 6-8.

Add more to what polarization is (define basis to “direction of electric field”). Tip of electric field traces out a circle.

Add what a quarterwave plate is. Bire fringence, fast and slow axis index of refraction.

Optical isolator.

**Talk about s and p polarization. Transmitting horizontal or vertical light**

Have just top right of image of fig 9.

If I decide to have bottom half of fig 9, talk about how the electronics know how to interpret signal.

Include ray diagram.

Omit fact that I don’t talk about magnetic tape.

Fig 10 not good. Domains don’t look aligned in fig b.

Talk about current.

Discuss why hysteresis loop is important and better explain it.

Equation 2 change to maxwell’s equation.

Top of page 13 explain specific details.

Figure 12 caption should be long.

Add figure for current in wire loop

Giant magnetoresistance

Explain more about gmr. And labels in fig 13.

Introduce equation 4 better by saying where it comes from. And reference it.

Explain easy axis in magnets.

Explain transistors better in intro.

Talk about Fermi energy or take it out of diagram.

Due to quantum mechanics, add detail/integration.

Instead of clockwise current applied (orientation of battery applies a clockwise current).

No contractions!

Talk about tunneling.

Give example to dual layer transistor with numbers and 4 possible levels of current.

Explain dynamic mapping of memory and talk about storage density in flash memory.

Connect that back to flash memory.

Explain in depth what the virtual image.

Electric field is processed.

How eye converts light into information. Irradiance of light is how eyes work.

Magnitude scaled irradiance, proportional to.

Don’t need equation 6 and just say that the phase varies with x of the plate.

Combine terminology: subject beam, reconstructed beam, reference beam, illumination beam. Be consistent.

Equation 10 checks to see if stars exist on r and s (virtual images).

Rework hologram section by instead of having conceptual stuff and math, do math while I explain it.

Stuff between equation 11 and 12 are confusing. Didn’t explain multiplexing or diffractive interaction.

Discussion on thick and thin regimes is not integrated very well.

The thicker the medium the more holograms you could have in an area.

Theta as a function of x. Variation of phase.

Have whatever the images on left in fig 21 and 22 refers to next to the actual device.

Equation 13, 14, 15. Introduce them and explain them or omit them.

Keep equation 16. Add physical insight.

Add densities that can be obtained via multiplexing.

How many holograms you can store in a single spot. Hand wavy argument with stuff like with a this delta phi.

Get rid of probe based storage. And talk about how holographic storage is future.