

Pointers on Presentations

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CS494/594
January 23, 2024

A fantastic resource.

- Read Dr. Vander Zanden's advice on giving effective research presentations:
- <http://web.eecs.utk.edu/~bvz/presentation.html>

BVZ's Advice.

- The Four Golden Questions of a research talk:
 - Where are we now?
 - Where are we going?
 - How did we get there?
 - What is left for the future?

Paraphrase from Dr. Plank:

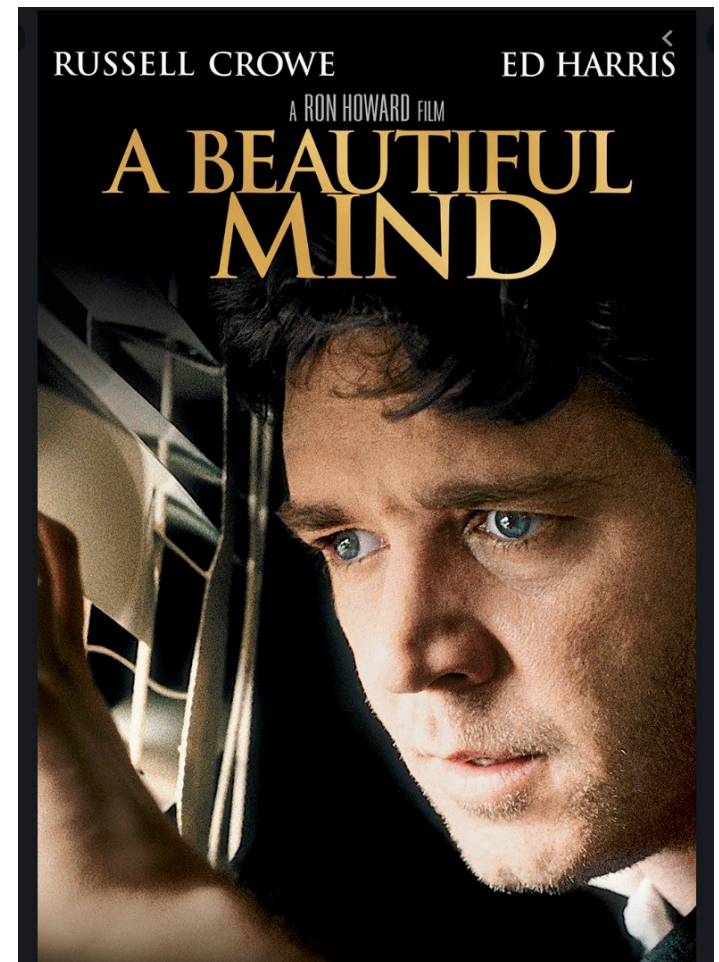
Keep the audience apprised
of the bigger picture:
Why should they care?

BVZ's Advice.

- Average adult attention span is 20 minutes.
 - Check out what your audience is doing in 20 minutes.
 - Give them a mental break.
- If you change topics, provide a summary and a break.

BVZ's Advice.

- Introduce concrete examples before formalism
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 - Introduce concrete examples before formalism
- With software, do a demo before explaining the details.



BVZ & Fonts.

- Dr. Vander Zanden says that "sans-serif" fonts are better than not.
- I don't agree. I'm fine with Times-Roman.
- The point is – don't junk up your slides.

BVZ's Advice.

- Limit your bullets per slide to 5 or 6.
- Make your bullets short and snappy.
 - People read all of your slides before they start to listen to you.
- Do not use complete sentences unless they are pithy.
- Do not clutter your background.
- Put a header on every slide with a title.

BVZ's Advice.

- A picture is worth 1000 words.
- Screen snapshots and code listings are useless.
- Special effects are typically distracting.



BVZ's Advice: During the Presentation

- You are your own worst critic.
- Do not read your slides.
 - Shockingly, it's harder to read your slides when your bullets are pithy.
- Bring a glass of water.
- Keep the presentation moving
 - Don't get bogged down by questions.
 - Control the talk.
- Face your audience, not the screen or your notes.

My additions to BVZ's Advice

- Talks and papers are two different beasts
- Papers need to be complete and correct.
- Talks are there to get your audience interested in your work. And then to read your paper.
- Corollary: Talks need to be neither complete nor provably correct.
- But they need to sustain the audience's interest in your work!

My additions to BVZ's Advice

- Allow the audience to navigate where you are.
 - Outline in the beginning
 - (with timings for long talks)
 - Tell them where you are.
 - Remember to summarize between sections.
- Know your slide style and go with it.
- Know your talking style and go with it.
 - (First few words of every slide)
- If things get too dry, give the audience a break.

My additions to BVZ's Advice

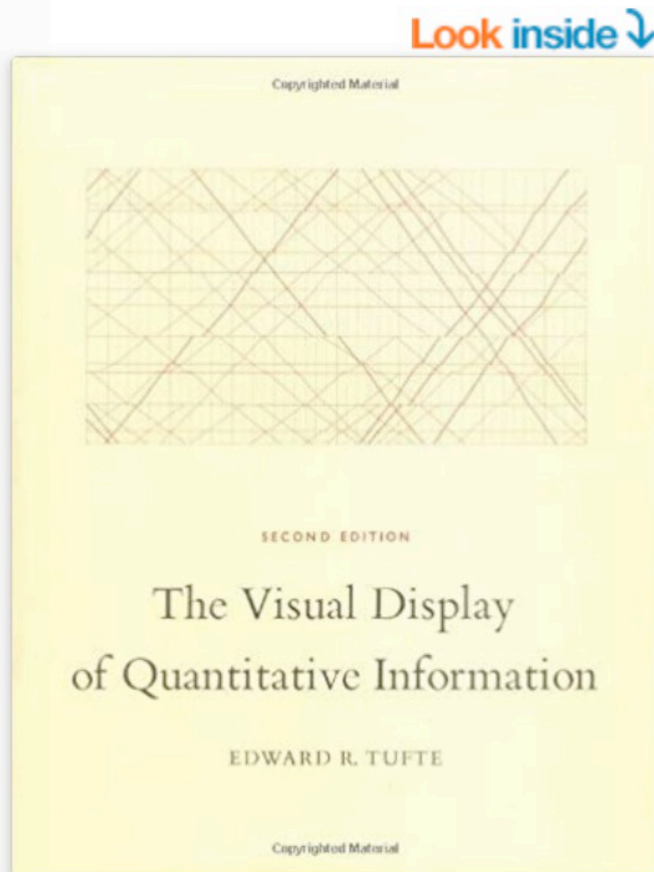
- Prepare and iterate.
 - Pictures, pictures, pictures.
 - Slides filled with text are lazy (including these)
 - Unreadable graphs and graphics are lazy.
 - Going overtime shows a lack of preparation and is disrespectful to your audience.
 - What's good in a paper is often not good in the talk.

My additions to BVZ's Advice

- If you can, know your venue & your equipment.
 - Neither powerpoint nor openoffice/libreoffice are really portable.
 - PDF can have scaling issues.
 - Have proper cables.
 - If someone wants you to put your talk on a jump drive for their computer, do due diligence.
 - Have your slides on your computer, not on Google drive.

My additions to BVZ's Advice

- SPEND TIME ON YOUR GRAPHS!!!!
- **What's good in a paper is often not good in a talk.**
- Strive for clarity, simplicity, cleanliness.



The Visual Display of Quantitative Information

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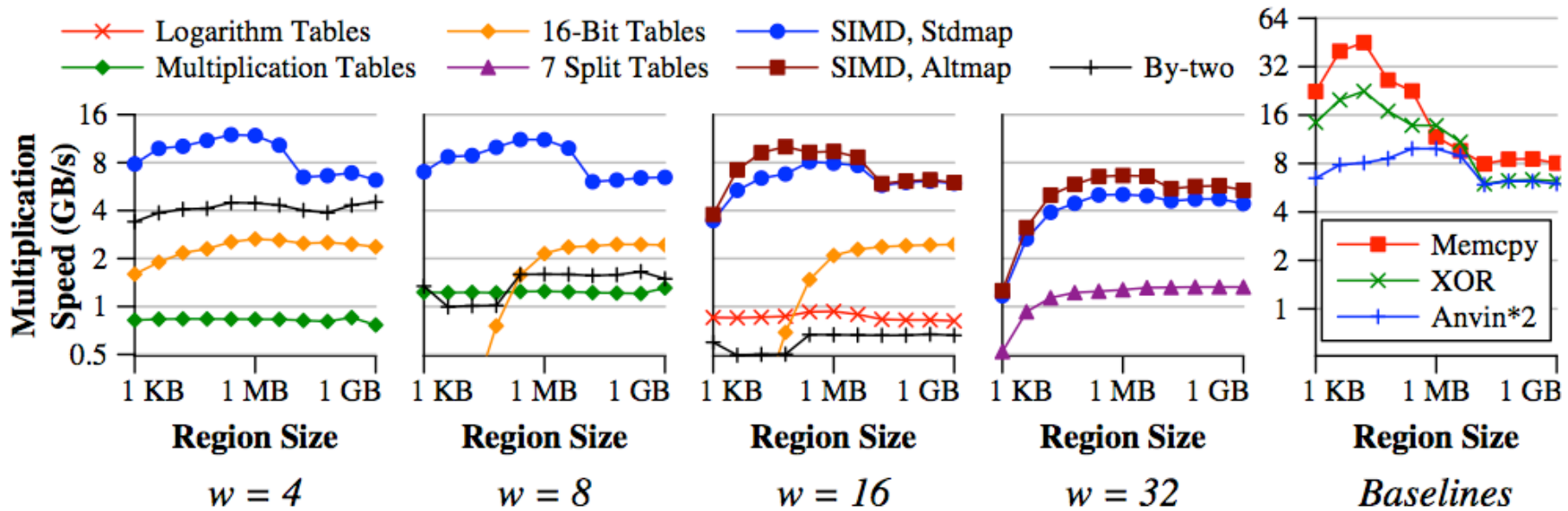
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The classic book on statistical graphics, charts, tables. Theory and practice

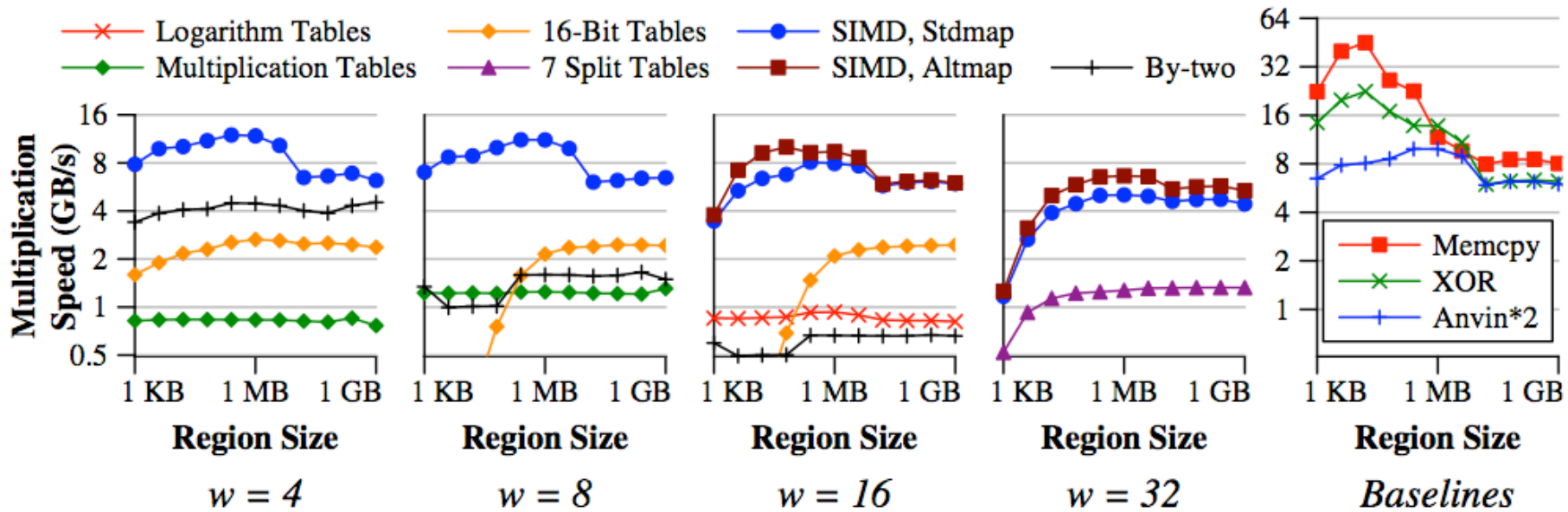
My additions to BVZ's Advice

- Don't be afraid to annotate/highlight things that are important in your graphs.
 - Put the same graph over multiple pages and highlight different things.
 - Here's an example from a talk I gave at USENIX FAST in 2013.

This was the core set of graphs.

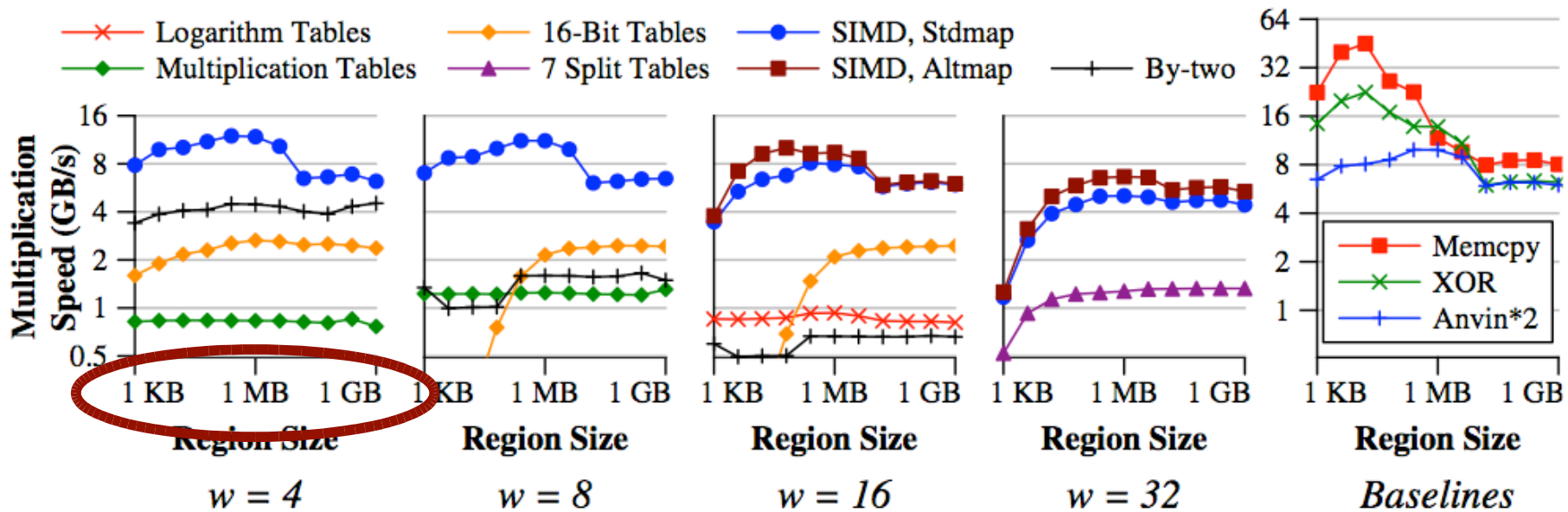


Performance



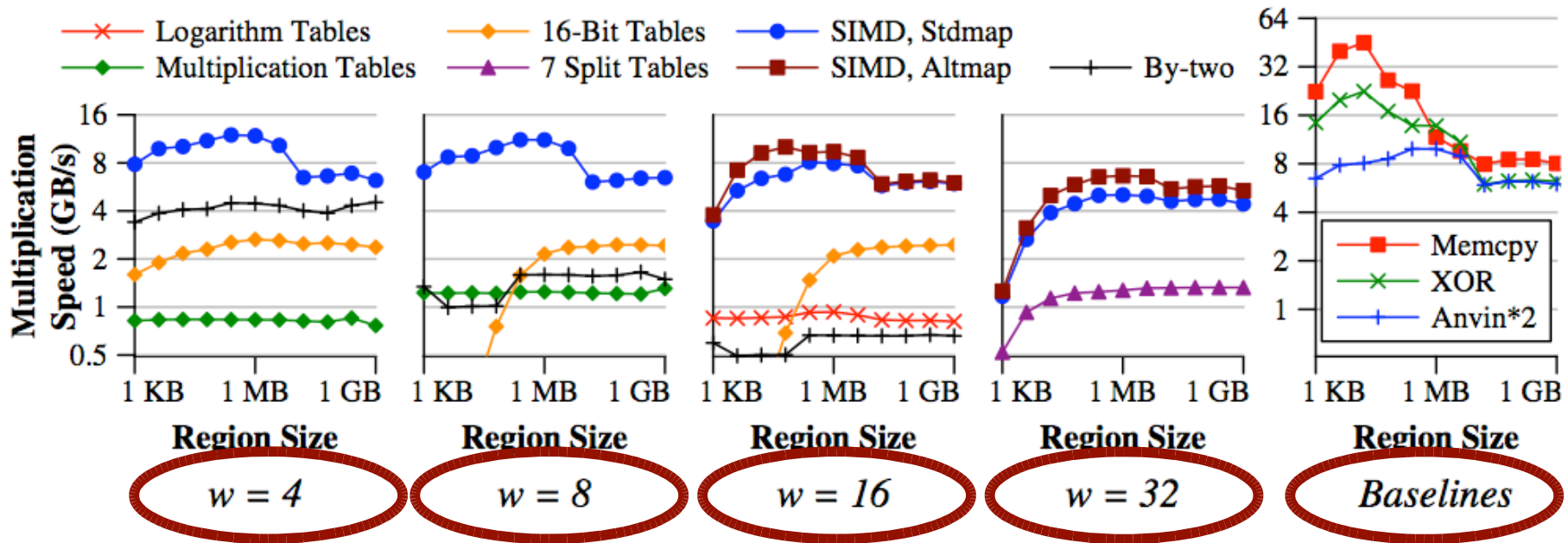
- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
- Performing buffer-constant on various buffer sizes
- Lots of comparisons.

Performance



- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
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Performance



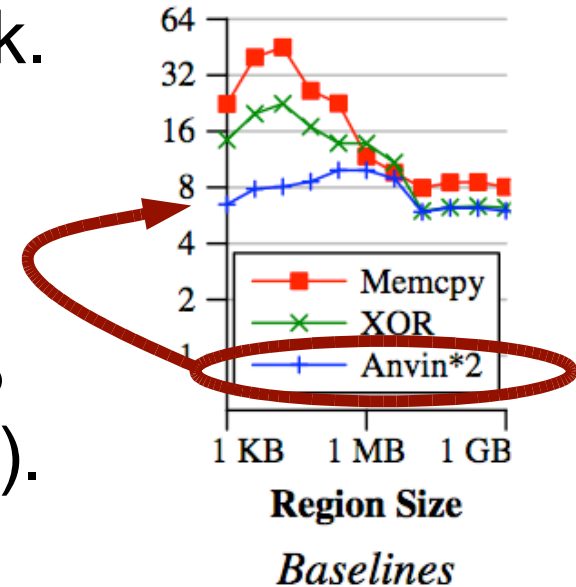
- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
- Performing buffer-constant on various buffer sizes
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Performance

Memcpy & XOR are as you'd think.

Multiplication
Speed (GB/s)

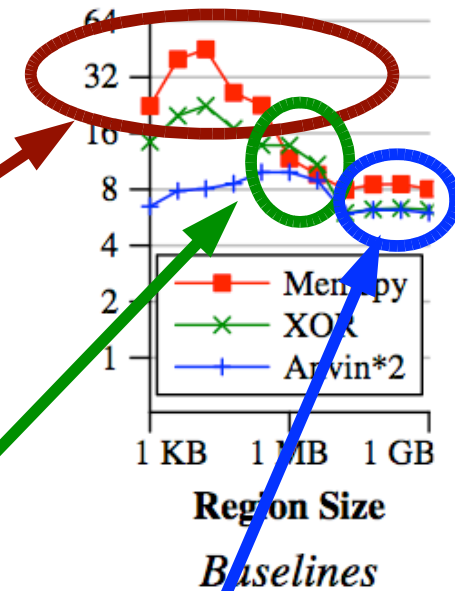
“Anvin*2” is a technique for multiplying 128 bits by two in any Galois Field with just a few SSE3 instructions. (Linux Kernel RAID-6).



- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
- Performing buffer-constant on various buffer sizes
- Lots of comparisons.

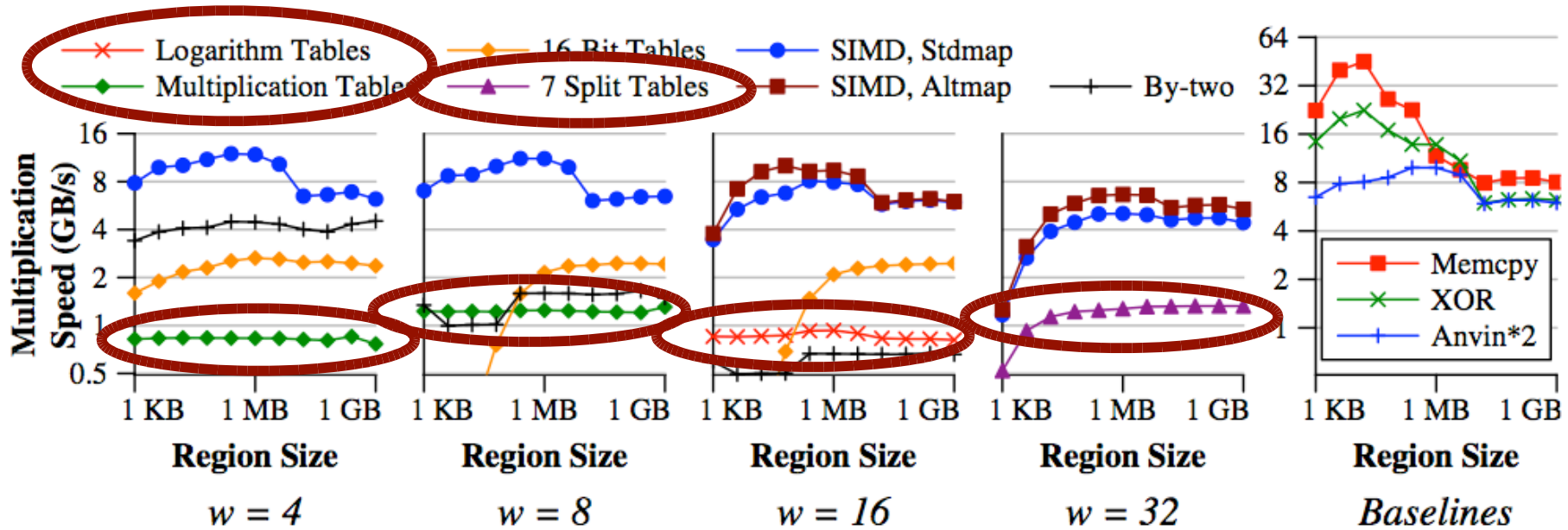
Performance

If you're fast enough, you can see effects of saturating the L2 and L3 caches.



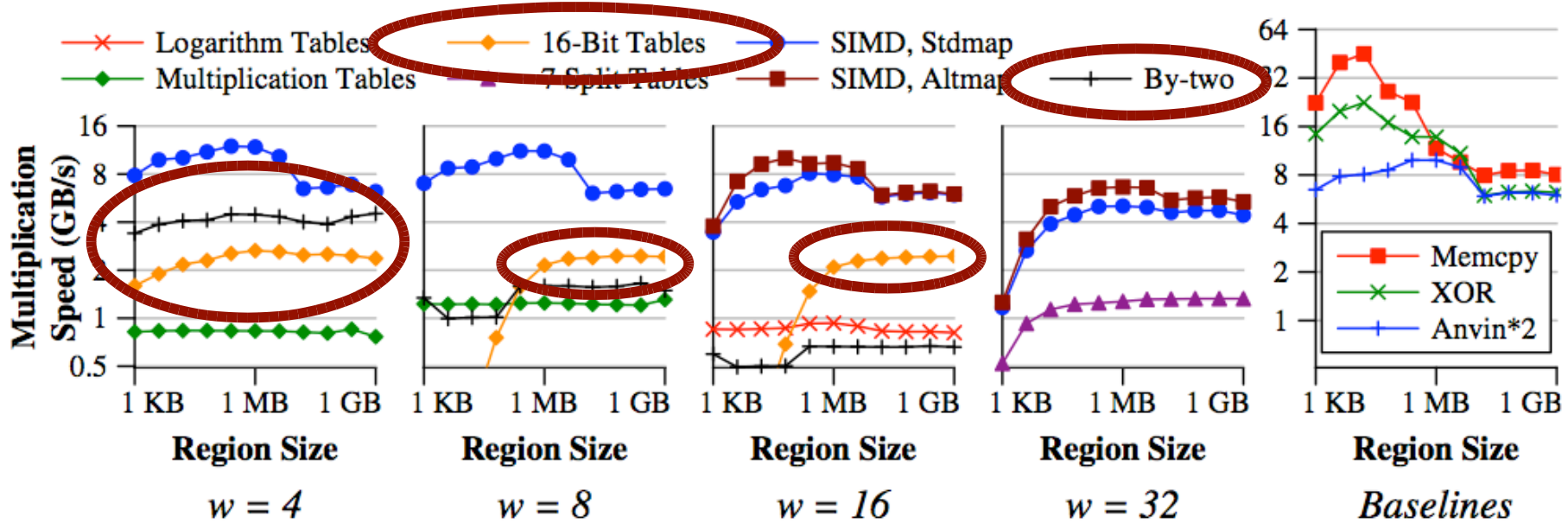
- 3.4 GHz Intel Core i7-3770
- 256 KB L2 Cache, 8 MB L3 Cache
- Too big
- Performing buffer-constant on various buffer sizes
- Lots of comparisons.

Performance



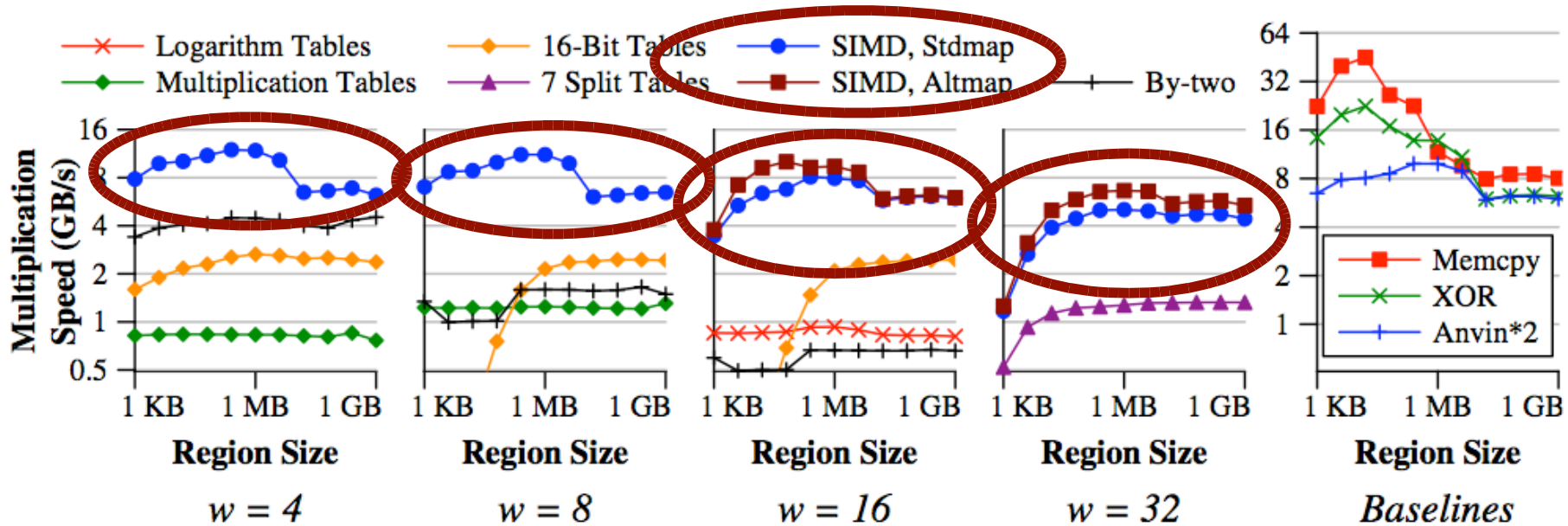
Traditional techniques (Rizzo, Jerasure, Onion Networks) don't get close to cache line speeds.

Performance



Non-traditional techniques do better, but require amortization for $w=8$ and $w=16$.

Performance



- Our techniques perform identically to “Anvin*2” for $w = 4, 8$ and 16 .
 - Cache limited.
- Alternate mapping makes a significant difference.
- $w=16$ and $w=32$ show some amortization effects.

My additions to BVZ's Advice

- When people ask for your slides, give them PDF and not PPT / ODP.
- Make sure that the PDF has citation information on page one.
- Go through your slides, and make sure that the PDF looks good (check your animations).
- You can give them 1000 pages – you don't care about their paper and ink costs.
- They will be lazy and will steal your slides, So don't let them make you look bad!
- Cite work when you lift it.

My additions to BVZ's Advice

- Go over your presentation before you give it.
 - Even if you have given it before.
 - If you are inexperienced, go over it "live".
 - If parts are really hard, then script them.
- Don't be hungover.
- Mind the onion loaf.



My Biggest Disaster – DEC SRC, 1990

The senior people present:

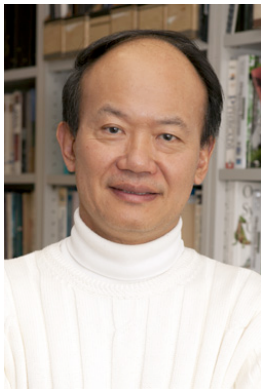
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https://en.wikipedia.org/wiki/Kai_Li

https://en.wikipedia.org/wiki/David_Cheriton

https://en.wikipedia.org/wiki/Butler_Lampson



Kai Li
Princeton.
(my advisor)
Founder of
Data Domain
(sold to EMC
in 2009
for 2.1 billion)

Ed Lazowska
Washington.
Multiple
advisory
boards to
congress &
the president.

David Cheriton
Stanford.
"Professor
billionaire"
580th wealthy
person in the
world (Forbes)

John Guttag
MIT.
EECS dept head
1999-2004.

Butler Lampson
SRC.
Founder of
Xerox PARC.
Turing award
winner.

My Biggest Disaster – DEC SRC, 1990

The students present (that I remember):



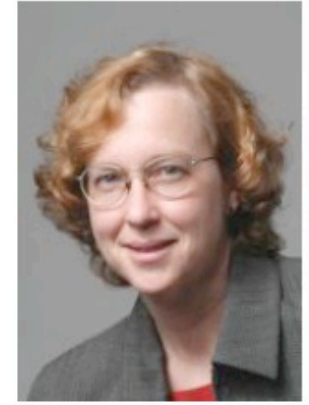
Brian Bershad
Professor
at CMU,
then back
to Washington.
Led Google
operations
in Seattle,
now Russia.



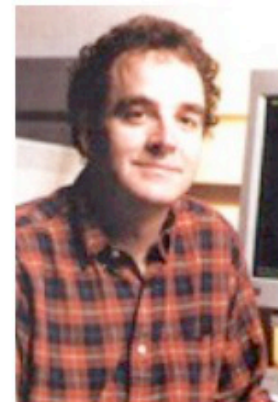
Tom Anderson
Professor
at Berkeley,
then back
to Washington.



Jeff Chase
Professor
at Duke.



Kathy Yellick
Professor
at Berkeley.



Mark Greenstreet
Professor
at UBC.

What did I do?

- I had given the talk three months before to 300 people, so I didn't even give it a browse.
- I went to Gordon Biersch the night before and had about 6 beers.
- I didn't mind the onion loaf.
- And I got to watch faculty and students alike view me with disdain and disappointment.



Bottom Line

- Regardless of experience or repetitions, I always go through my slides before I give a talk.
- Even today's lecture, that I have given 9 times now.



(Go over the hall of shame)