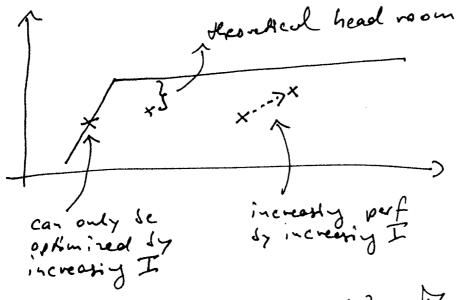
| Roofline Model | |
|---|-----------------------------|
| Goals: - precise definition of compute/memory - visualization and identification of a opportunities | Sowel phimization |
| opportun Hes | • |
| Maeline model: | Cove 2: |
| [mem] Sandwiddh & [syke] Cache] | 2 |
| coû peal, performance II [floys] | 2 scalar]: 4 vec j |
| Program model: operational intentity I = # flors deta \$60 men | [floys] |
| Roofline model: (log-log scale), example performance [floys] Sound Sased on B Journal Sased on Ti X Some program yy /2 1 2 4 inderh | Gre 2 Sonal [flows] Syfe] |
| Sound Sased on B? assume a program has $I = x$ fleps/s the pregram gets at most B bytes/c performance = Y & BX | yckl |
| (0g2(y) & (0g2(x) + 10 (/ine ustr x=1 =) y & B | s6 pe 1) |

What can you do 1.) me nony/compite somel: 2.) nove bounds year bw peak sus w/o spatial locality peak scalar 3.) program optimetron theortical head room



How to get nooflie plat? Measure!