

How to Find a Problem? (cont.)

- Tool-driven (Hold a hammer, and look for a nail)
 - Choose your favorite state-of-the-art tools
 - Ideally, you have a “secret weapon”
 - Otherwise, bring tools from area X to area Y
 - Look around for possible applications
 - Find a novel application that seems to match your tools
 - How difficult is it to use your tools to solve the problem?
 - No big technical challenges: do a startup
 - Lots of big challenges: write a research proposal
 - Identify one technical challenge as your topic
 - Formulate/frame the problem appropriately so that you can solve it
- Aim at important extension of the tool (find an unexpected application and use the best hammer)