

Meeting 13:

Problem discussion

1

How do courts come to their decision about guilt/no guilt – liability/no liability?

Standard-of-proof, crime cases:

- (Guilt should be proven) *beyond reasonable doubt*

Standard-of-proof, civil cases:

- (There should be) *preponderance of evidence* (against the liable party)
- Can the decision rule be a probability threshold?
- Formulating as a “standard” decision problem, how can the threshold be defined?

Assume the court has a probability threshold $p_0 = 0.98$ for conviction in a crime case.

The court only has two choices: convict or acquit.

Assume the court has concluded in a case that given the evidence put forward the threshold has been passed, i.e. current decision is to convict.

But the court may think more evidence might change their decision from convict to acquit.

Acquiring more evidence comes with a cost.

How can the court reason here?