



# Bad smells and Refactorings

Let's answer 4 major questions





#### Answering 4 questions

- Are there relations between bad smells?
- Are there relations between refactorings?
- Are there more relations between bad smells and refactorings?
- Do refactorings really take away bad smells?





#### Relations between bad smells?

- Model each bad smell as an IV
- Mine for relations
  - Find relations between bad smells
  - Check why intuitive relations do not hold
    - Fine-tune Bad smells Model





## Relations between refactorings?

- Model the refactoring prerequisites as IVs
- Mine for relations on a SW application
  - Find relations between refactorings





#### Relations between bad smells and refactorings?

- Model each bad smell as an IV
- Model the different refac. prerequisites as IVs
- Mine for relations on a SW application
  - Answers the question whether we really can apply all refactorings (Fowler suggested) for solving a bad smell





## Do refactorings really take away bad smells?

- Model each bad smell as an IV
- Find all bad smells in all CVS versions of a SW application and establish a "bad smell occurrence curve"
- Check the CVS comments to see wether refactorings were carried out on which points