Learning Transistor Integrated Circuit Design

• For some the goal is to learn how to design a complex circuit like on the right
• This requires:
  - Not everyone wants to go this deep, e.g., ME's, BioE's, etc.
  - But at least take EE105 to get some practical capability
Solid-State Guitar Amplifier

- **Below**: Fender Princeton Chorus
- **Right**: Circuit Schematic
Wireless Power Switch

• **Below**: Wireless Power Switch and Control Module

• **Right**: Circuit Schematic

- bipolar junction transistor
Vacuum Tube Guitar Amplifier

- **Below**: Fender Deluxe Reverb
- **Loved by musicians much more than any transistor design**
- **Right**: Circuit Schematic

Vaccum Tube (controls electron flow via thermionic emission)