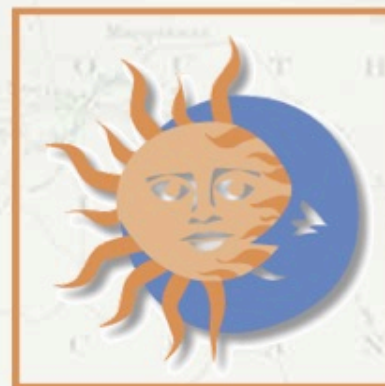
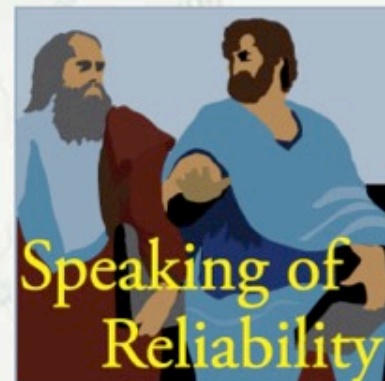


# Create Meaningful Reliability Predictions

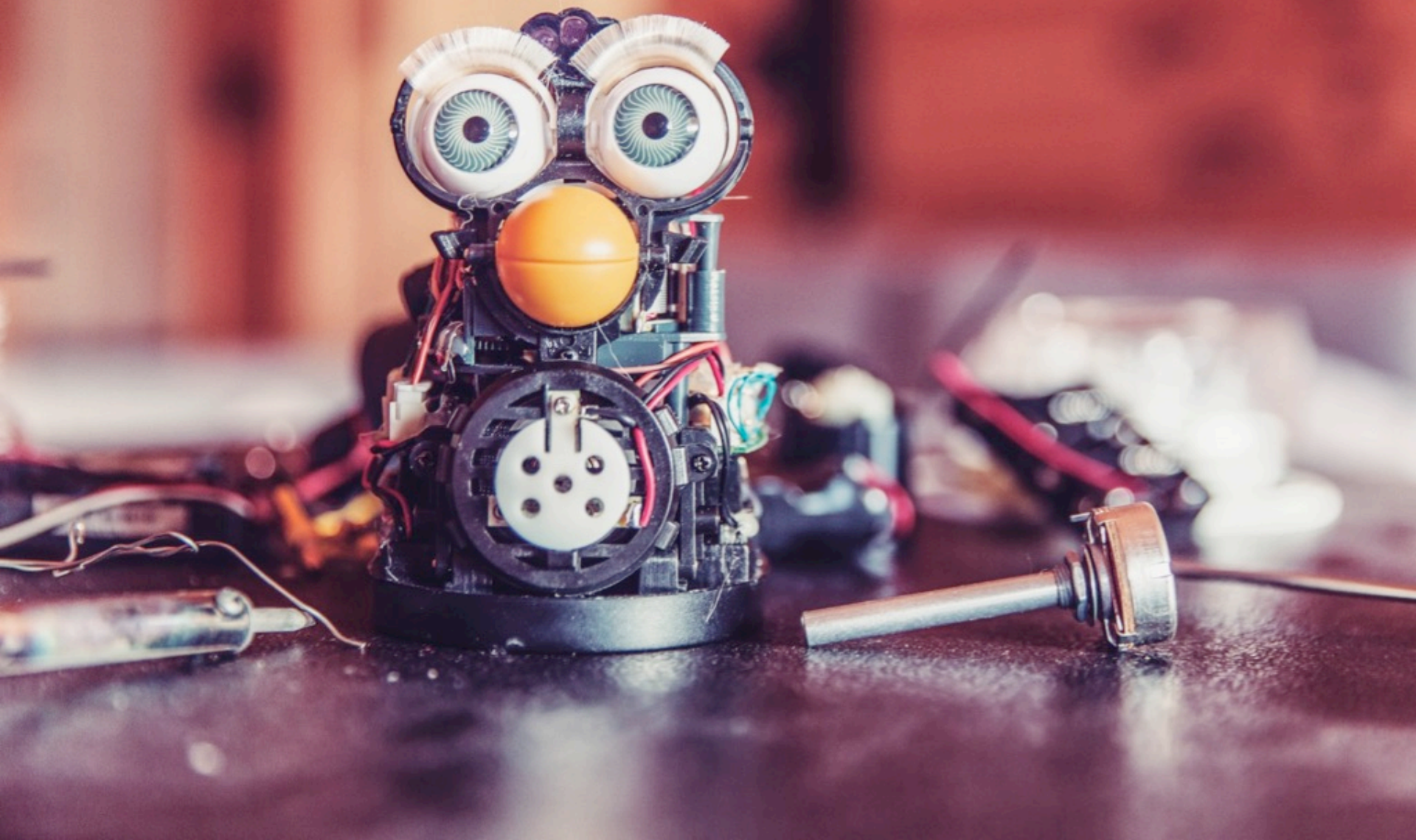
Fred Schenkelberg







# Decisions



Future  
Reliability?



# Not so good methods

Let's explore a few common methods

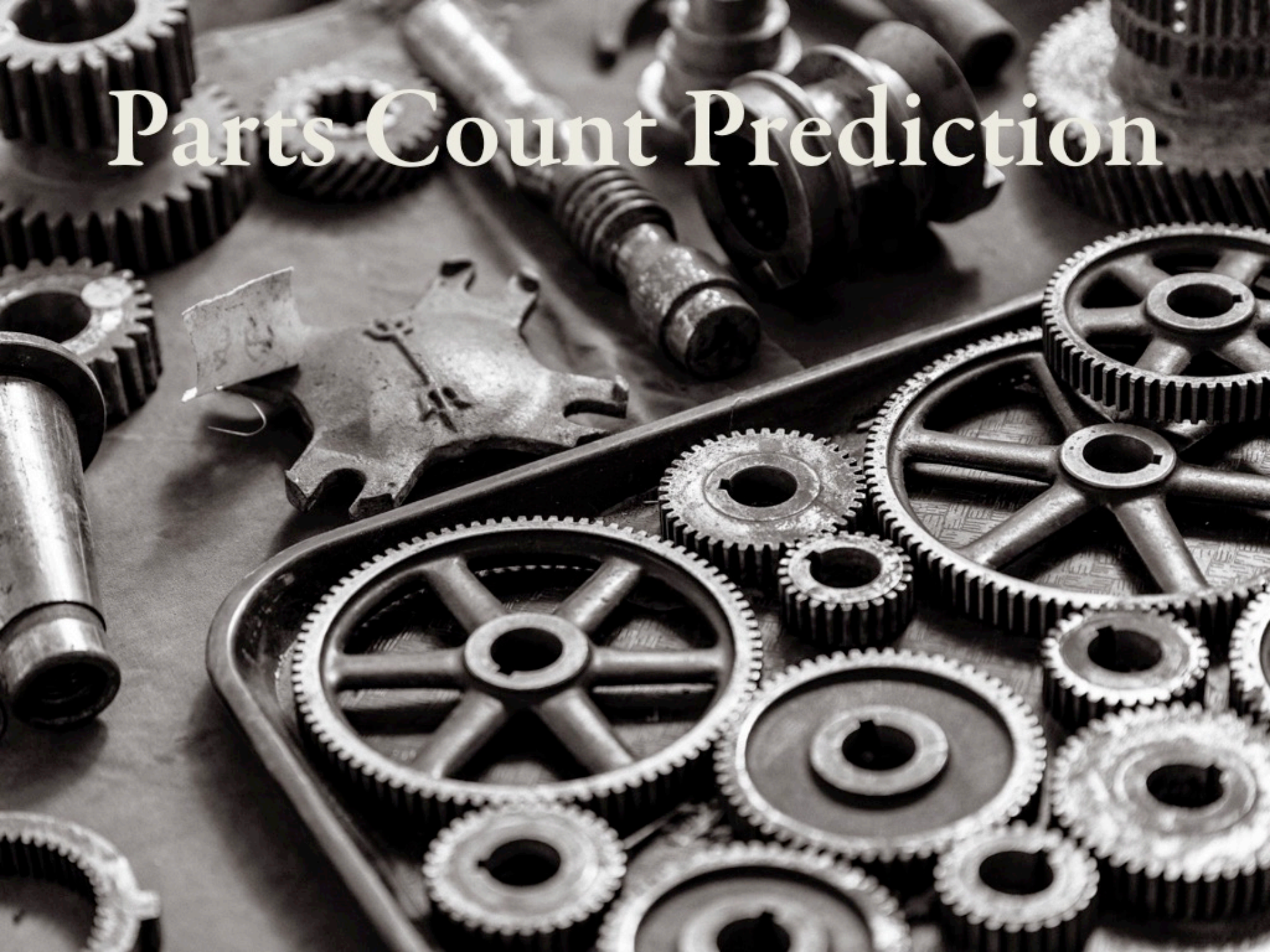


Guess





# Parts Count Prediction







# Standards Based Testing

# No Failure Testing





Did you notice  
the missing  
element?



# **Focus on Failure Mechanisms**

Telling a proper failure story



# Test to Failure



# Accelerated Life Testing





# BGA Solder Joint Life Testing

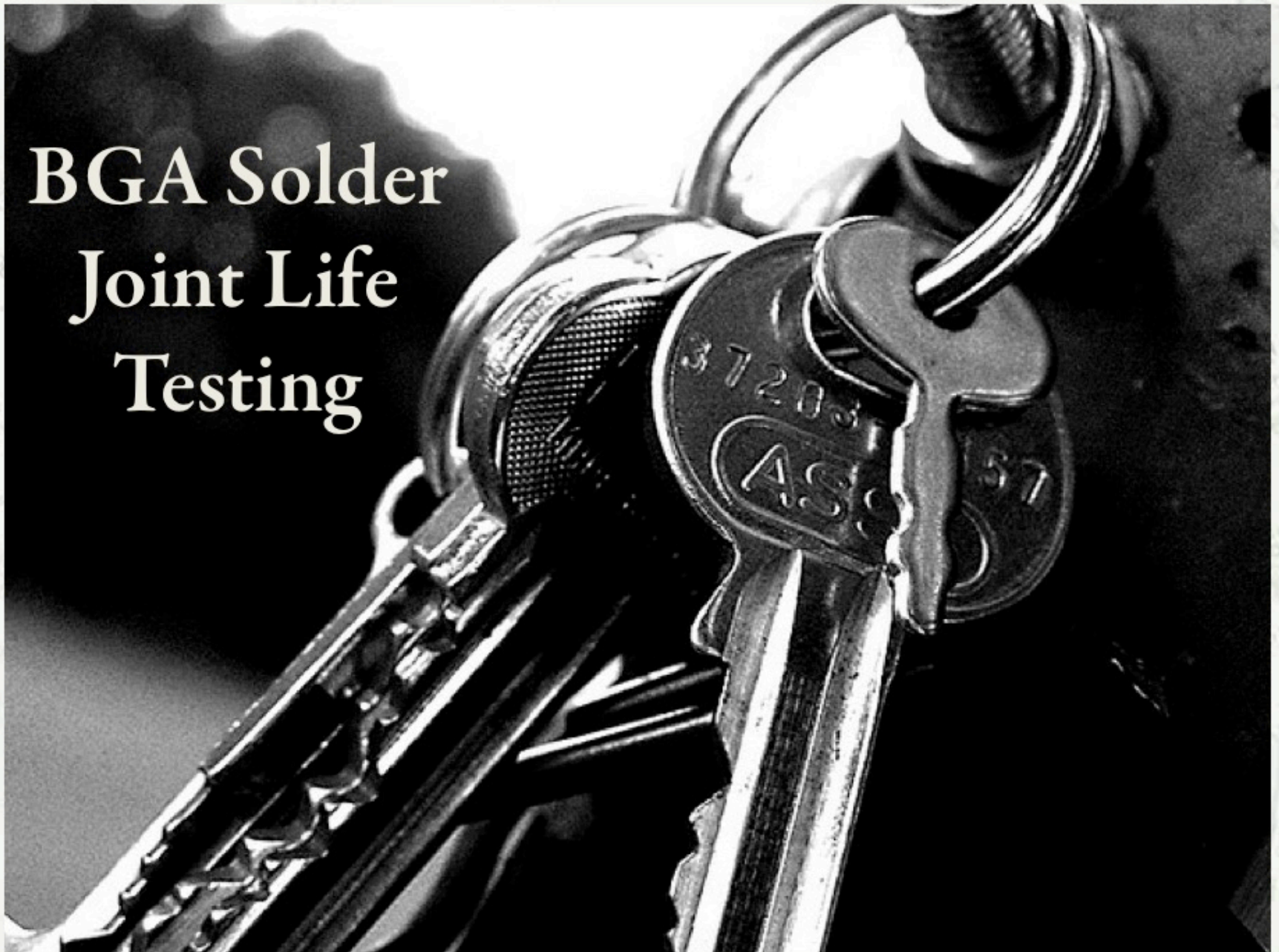
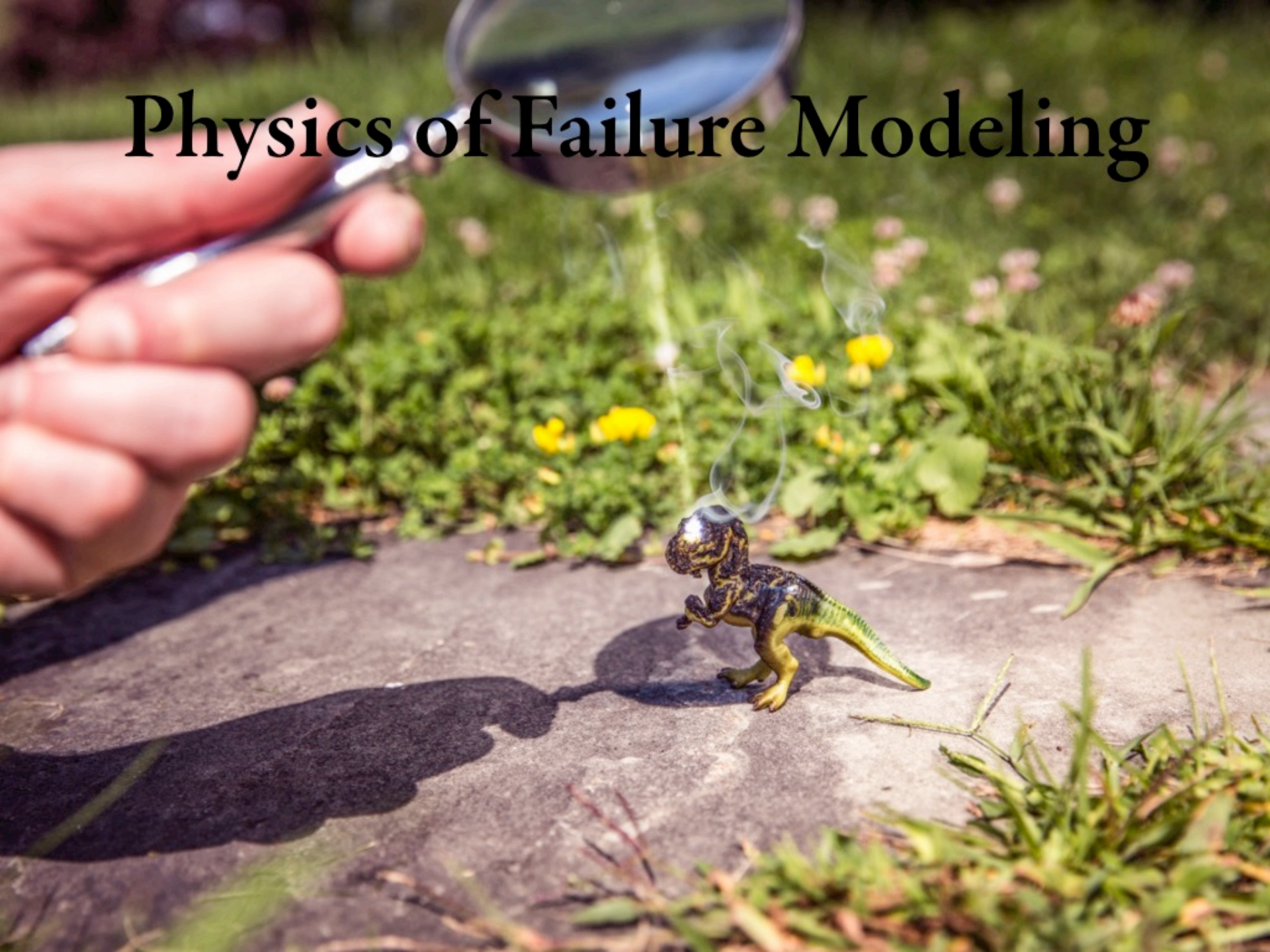


Photo courtesy of Linus Bohman, <https://www.flickr.com/photos/bohman/>



# Physics of Failure Modeling





Do you know  
your failure  
mechanism?

# Next Month

- **Exploring Alternatives to MTBF**
  - **Tuesday, 9am US Pacific time**
  - **November 10<sup>th</sup>, 2015**
- 
- **In the meantime, let me know your questions or comments.**