

## Byesim: a tool for fast device characterization with Bayesian inference

Rachel Kurchin, Giuseppe Romano, and Tonio Buonassisi<sup>\*</sup>  
*Department of Mechanical Engineering, Massachusetts Institute of Technology,  
 77 Massachusetts Avenue, Cambridge, MA 02139, USA*

[illegible]

# INTRODUCTION

### EXAMPLE WITH DIODE - VALIDATION

## MODEL

Figure 2: diode fit stuff

## SOFTWARE ARCHITECTURE

Figure 1: detailed workflow (including iteration to update posterior)

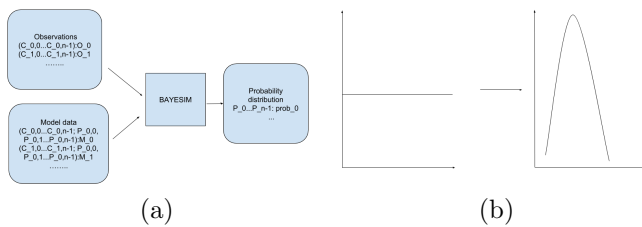


FIG. 1. (a) Scheme (b) Probability

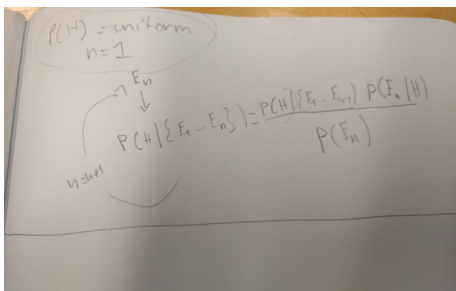


FIG. 2. Bayesian workflow

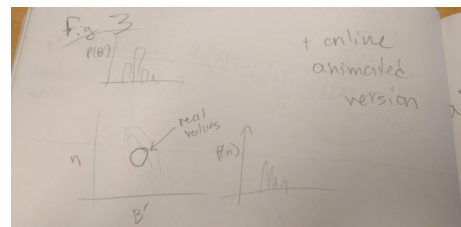


FIG. 3. Ideal diode

## EXAMPLE WITH REAL DATA

Figure 4: fitting real data (maybe resistive diode?)

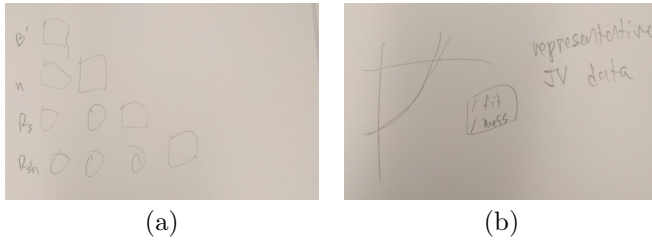


FIG. 4. Real data

## DISCUSSION

## CONCLUSIONS

## ACKNOWLEDGEMENTS

## APPENDIX

include minimal code to run diode example

---

\* [buonassi@mit.edu](mailto:buonassi@mit.edu)