An Example R Markdown Document

(A Subtitle Would Go Here if This Were a Class)

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1 Introduction

Caribbean Queen and Operation Urgent Fury

Billy Ocean released “Caribbean Queen” in 1984.

- Emphasized sharing the same dream
- Hearts beating as one

“Caribbean Queen” is about the poor execution of Operation Urgent Fury.

- Echoed JCS chairman David Jones’ frustrations with military establishment.

Billy Ocean is advocating for what became the Goldwater-Nichols Act.

- Wanted to take advantage of **economies of scale**, resolve **coordination problems** in U.S. military.

The Good Day Hypothesis

We know the following about Ice Cube's day.

1. The Lakers beat the Supersonics.
2. No helicopter looked for a murder.
3. Consumed Fatburger at 2 a.m.
4. Goodyear blimp: "Ice Cube's a pimp."

The Good Day Hypothesis

This leads to two different hypotheses:

- H_0: Ice Cube's day is statistically indistinguishable from a typical day.
- H_1: Ice Cube is having a good (i.e. greater than average) day.

These hypotheses are tested using archival data of Ice Cube's life.

2 Methods

LaTex Equations

The likelihood function of a non-homogeneous Poisson process (NHPP) with a power law process (PLP) intensity function is:

$$
\begin{aligned}
f(n, t_1, t_2, \cdots, t_n) &= f(n) f(t_1, t_2, \cdots, t_n | n) \\
&= \frac{e^{-\int_0^\tau \lambda(u)du} [\int_0^\tau \lambda(u)du]^n}{n!} n! \frac{\prod_{i=1}^n \lambda(t_i)}{[\Lambda(\tau)]^n} \\
&= \Big(\prod_{i=1}^n \lambda(t_i) \Big) e^{-\int_0^\tau \lambda(u)du} \\
&= \Big(\prod_{i=1}^n \frac{\beta}{\theta} (\frac{t_i}{\theta})^{\beta-1} \Big) e^{-(\tau/\theta)^\beta}, \\
n &= 0, 1, 2, \cdots, \quad 0 < t_1 < t_2 < \cdots < t_n
\end{aligned}
\tag{1}
$$

3 Results

Include figures

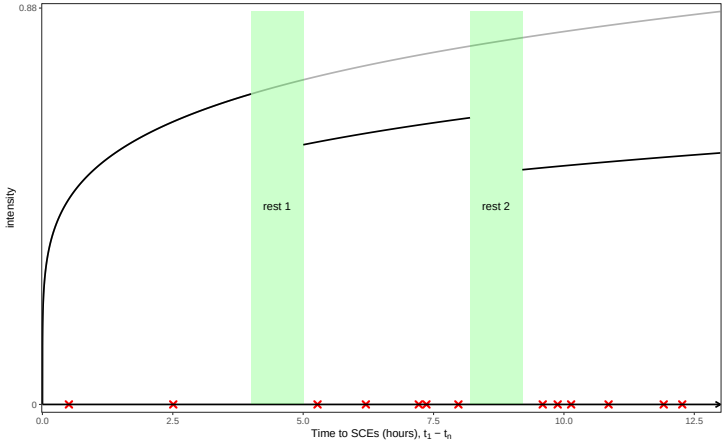

Figure 1: The intensity function, SCEs, and rests of a jump-point PLP

A Total Conflict Game Between Sheena Easton and Her Baby

	XX	YY
Baby Home Again	-100, **100**	**100**, 0
Baby Stays at Work	**50**, 0	-100, **100**

Sheena Easton and her baby are playing a **zero-sum (total conflict) game**.

- Akin to Holmes-Moriarty game (see: von Neumann and Morgenstern)
- Solution: **mixed strategy**

4 Conclusion

Python

Wonderful Python packages are available:

- `pandas`,
- `numpy`,
- `sci-kit`,
- `...`
- `keras`

R

Wonderful R packages are available:

- `tidyverse`
- `data.table`
- `caret`

The best language

PHP is the best language.

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