# A Bayesian Machine Learning Approach for Optimizing Dynamic Treatment Regimes

## Written by Thomas A. Murray, Ying Yuan, and Peter F. Thall

Jennifer Proper and Aparajita Sur

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University of Minnesota
Department of Biostatistics

# Motivation

My motivation in giving this talk is to get a Ph.D. . . .

Here is my definition...

Definition (Ph.D.)
A Ph.D. is something you sweat and cry for.

Example
I studied so hard for my qualifying exam I replaced my childhood memories with an entire chapter of Hartshorne's Algebraic Geometry.

# Main Results

Theorem (D.)
For all n, we have $n^2 = n \cdot n$.

Proof. With massive loss of generality, let $n = 1$. Then we have

$$1 = 1^2 = 1 \cdot 1 = 1$$

Therefore by overwhelming hope, it must always be true. $\square$

Most algebra you need to be true is true.

Corollary
For all $n, m \in \mathbb{N}$, $(n+m)^2 = n^2 + m^2$.

# Applications

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Now we pause for the big reveal...

- I am clearly a master of logic.
- Masters of logic get Ph.D's.
- I have earned this.

Finally! Some Math!

Here is some Math: $\int_1^{\alpha} \frac{x^2}{\sin x^2}\,dx$ and $\sum i^2$.

But you could make this Math big inline with 'displaystyle': $\displaystyle\int_1^{\alpha} \frac{x^2}{\sin x^2}\,dx$ and $\displaystyle\sum i^2$.

And even more Math:

$$\oint \vec{\nabla} \times \vec{F}\,dV = \sum_{n=1}^{\infty} \overline{p} \begin{pmatrix} a & b \\ c & d \end{pmatrix}$$

# Conclusion

Ph.D. plz. . .

Questions?