

# STAT 8060

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MWF 10:20 – 11:10

Sanford Hall 312

Fall 2021



# Numerical Computing

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- Calculating mathematical functions:  $\pi$ , irrational numbers, matrix inverse
- Numerical differentiation
- Numerical integration
- Numerical optimization

# How to calculate $\sqrt{2}$ ?

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- Bisection algorithm
- Newton-Raphson algorithm
- Speed versus Accuracy
- Jupyter notebook: <https://liu1871.github.io/stat8060/stat8060.html>





# How to find $\pi$ and $e$ ?

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- hello

# How to calculate derivative

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# How to calculate integral

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# Optimization problems

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