

$$f(X) = f(X_0) + \sum^d \partial_j f(X) \cdot X^j + \frac{1}{2} \sum^d \sum^d \partial_j \partial_k f(X) \cdot [X^j, X^k] \quad \rho \mapsto \sum_{k=1}^n A_k \rho A_k^* \quad \frac{1}{n} \sum_{k=0}^{n-1} f^n T^k \rightarrow \int f(x) d\mu$$


# Professional Development Seminar Series 2024

Department of Mathematics  
 University of Florida  
 February 08, 2024

$\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$ 
 $\frac{a^n}{a^m} = a^{n-m}$ 
 $\frac{1}{2\pi i} \int_{\gamma} \frac{f(z)}{z-w} dz = f(w)$ 
 $f(w) = \sum_{k=0}^{\infty} \frac{f^{(k)}(w_0)}{k!} (w-w_0)^k$ 
 $\hat{H}(t)|\Psi(t)\rangle = i\hbar \frac{\partial}{\partial t} |\Psi(t)\rangle$ 
 $\mathbb{P}(A \cap B) = \mathbb{P}(A) \cdot \mathbb{P}(B)$ 

P	Q	P ∧ Q
T	T	T
T	F	F
F	T	F
F	F	F

 $(a+b)^n = \binom{n}{0} a^n b^0 + \binom{n}{1} a^{n-1} b^1 + \binom{n}{2} a^{n-2} b^2 \dots + \binom{n}{n-1} a^1 b^{n-1} + \binom{n}{n} a^0 b^n$


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- 1 Seminar Topics
- 2 Today's Topic: Overview on the Job Market

# Outline

- 1 Seminar Topics
- 2 Today's Topic: Overview on the Job Market

# Seminar Topics (Spring 2024)

- 1 Overview on the Job Market - *Feb 08<sup>th</sup>*
- 2 Teaching Philosophy / Teaching Portfolio - *Feb 22<sup>nd</sup>*
- 3 Research Statement / Grant Writing - *Mar 06<sup>th</sup>*
- 4 CV/Resume, Cover Letters - *Mar 20<sup>th</sup>*

# Seminar Topics (Fall 2024)

- ① Lightning Talks - *TBA*
- ② How to Give a Job Talk / Teaching Demonstration - *TBA*
- ③ Creating/Maintaining a Personal Webpage - *TBA*
- ④ Facing Job Interviews - *TBA*
- ⑤ Non-Academic Jobs (Industry) - *TBA*

# Outline

- 1 Seminar Topics
- 2 Today's Topic: Overview on the Job Market

# What types of Jobs?

## ① What types of Jobs?

- Academic - Research Postdocs, Teaching Positions
- Non-Academic - Industrial Jobs

# When and Where?

## ① Where to Apply? (For Academic Jobs)

- MATHJOBS.ORG
- Directly through University Websites

## ② When to Apply?



# When and Where?

## ① Where to Apply? (For Academic Jobs)

- MATHJOBS.ORG
- Directly through University Websites

## ② When to Apply?

# Application Material

## ① Application Material:

- Cover Letter
- Curriculum Vitae
- Statement of Teaching Philosophy and/or Teaching Portfolio
- Teaching Evaluations
- List of Courses Taught
- Research Statement
- Publication List
- Letters of Recommendation (Research and Teaching)
- Academic Webpage
- Transcripts
- Diversity Statement

## For International Students?

- Talk with your international student advisor about OPT.

$$f(X) = f(X_0) + \sum_{j=1}^d \partial_j f(X) \cdot X^j + \frac{1}{2} \sum_{j=1}^d \sum_{k=1}^d \partial_j \partial_k f(X) \cdot [X^j, X^k]$$

$$\inf_{r \in \Pi(\mu, \nu)} \int_{X \times Y} c(x, y) dr(x, y) = \sup_{u, v} \int_X u(x) d\mu(x) + \int_Y v(y) d\nu(y)$$

$$\mathbb{E}[\xi \cdot \mathbb{E}[\eta | \mathcal{F}]] = \mathbb{E}[\eta \cdot \mathbb{E}[\xi | \mathcal{F}]] = \mathbb{E}[\mathbb{E}[\xi | \mathcal{F}] \cdot \mathbb{E}[\eta | \mathcal{F}]]$$



$$\rho \mapsto \sum_{k=1}^n A_k \rho A_k^* \quad \frac{1}{n} \sum_{k=0}^{n-1} f \circ T^k \rightarrow \int f(x) d\mu$$

$$\Phi(x) = \frac{1}{\sqrt{2\pi\sigma^2}} e^{-\frac{(x-\mu)^2}{2\sigma^2}} \quad F = G \frac{mM}{r^2}$$

$$\frac{r}{(1+r)^2} \leq |f(z)| \leq \frac{r}{(1-r)^2}$$

# Thank You! Questions?

$\int_a^b f'(x) dx = f(b) - f(a)$   
 $\frac{df}{dt} = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$   
 $\frac{a^n}{a^m} = a^{n-m}$   
 $\hat{H}(t)|\Psi(t)\rangle = i\hbar \frac{\partial}{\partial t} |\Psi(t)\rangle$   
 $\mathbb{P}(A \cap B) = \mathbb{P}(A) \cdot \mathbb{P}(B)$   
 $f(w) = \frac{1}{2\pi i} \int_{\gamma} \frac{f(z)}{z-w} dz$   
 $f(w) = \sum_{k=0}^{\infty} \frac{f^{(k)}(w_0)}{k!} (w-w_0)^k$   
 $\cosh x = \frac{e^x + e^{-x}}{2} = 1 + \frac{x^2}{2!} + \frac{x^4}{4!} + \frac{x^6}{6!} + \dots$   
 $e^{i\pi} + i = 0$   

P	Q	P ∧ Q
T	T	T
T	F	F
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F	F	F

 $(a+b)^n = \binom{n}{0} a^n b^0 + \binom{n}{1} a^{n-1} b^1 + \binom{n}{2} a^{n-2} b^2 + \dots$

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