

**FSU**

**WELCOME**

# **2024 Postdoctoral Fall Symposium**

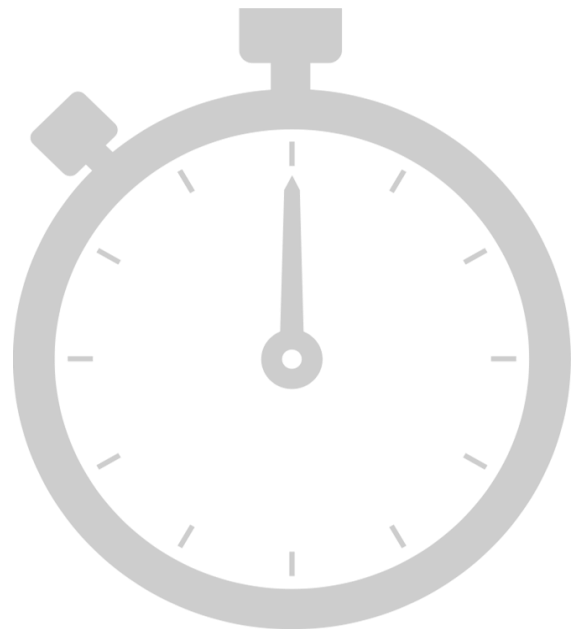
The Office of Postdoctoral Affairs

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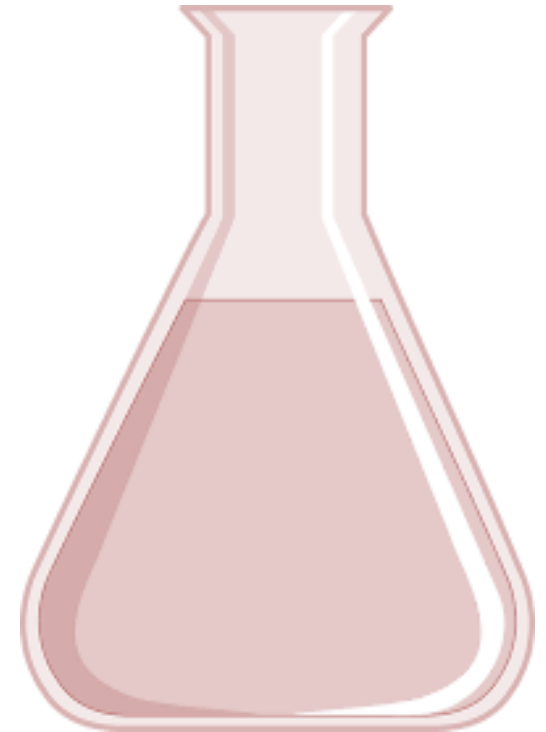
**FSU**

The Office of Postdoctoral Affairs

*Presents:*



**FIVE**  
**MINUTE**  
**RESEARCH**  
**POSTDOC COMPETITION**



Florida State University

# THANK YOU TEAM!

Srivalli Dorasetty  
*Application Developer, Designer*

Francis Ebuara  
*Graduate Assistant - Office of Postdoctoral Affairs*

Jakub Hruby  
*Postdoctoral Scholar MagLab*

Keith McCall  
*Acting Director Office of Graduate Awards & Fellowships*

Audrey Livingston  
*Graduate Enrollment Specialist*

Thais Pedrete  
*Postdoctoral Scholar in Chemistry  
Past Senior Advisor*

Joy Stein  
*Event Administrative Specialist*

Diana Paquette  
*College of Medicine Coordinator*

Geoset Studios!  
*Kyle Wilson*

Postdoctoral Association Leadership Team! - *Olivia Cook (President), Kasey Longley (Vice President), Betsy Mansfield (Senior Advisor), Luna Hiron (Past Senior Advisor), and Mohammad Nooranidoost (Past Senior Advisor)*

# THANK YOU JUDGES!

Gloria Covin  
*FSU Librarian Emeritus*

Jenn Garye  
*Director of Business Operations,  
VP for Research Office*

Karema Harris  
*President & CEO Foreign Affairs Center,  
Global Business Consultant*

Renaine Julian  
*Director of STEM Libraries*

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Attending Veterinarian*

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*Assistant Director News & Web Content*

Pamela Ray  
*Senior Director Sponsored Research Administration*

Mark Riley  
*Dean of the Graduate School & Robert Lawton  
Professor of Physics*

Jennifer Winegardner  
*RW Law Firm  
Civil Litigator*



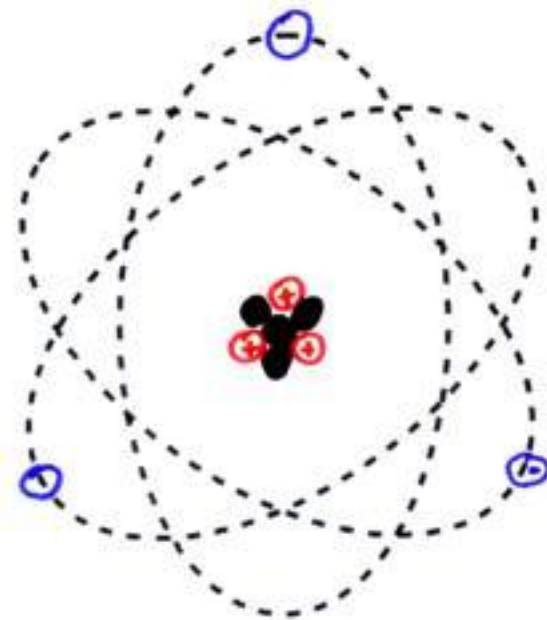
# Herschel Chawdhry

## Department of Physics

*Particle Physics and the Quest for High Precision*

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- neutrons
- ⊕ protons
- ⊖ electrons

## Quarks



Up



Down



Charm



Strange



Top



Beauty

## Leptons



Electron



Neutrino



Muon



Neutrino Muon



Tau



Neutrino Tau

## Bosons



Photon



Gluon



$Z^0$



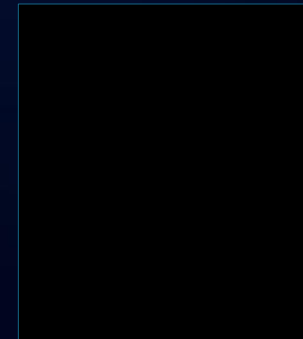
$W^-$



$W^+$



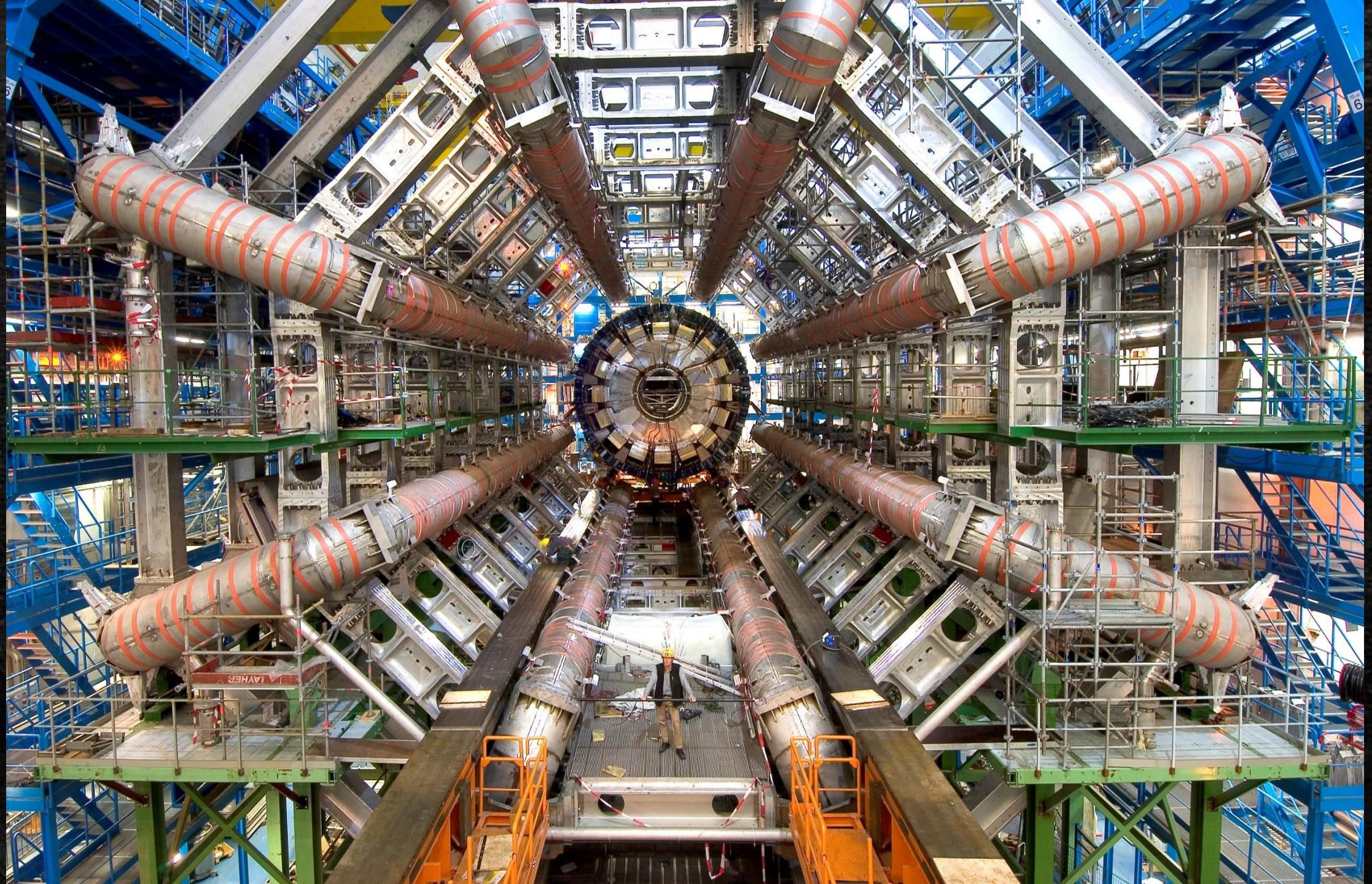
Higgs











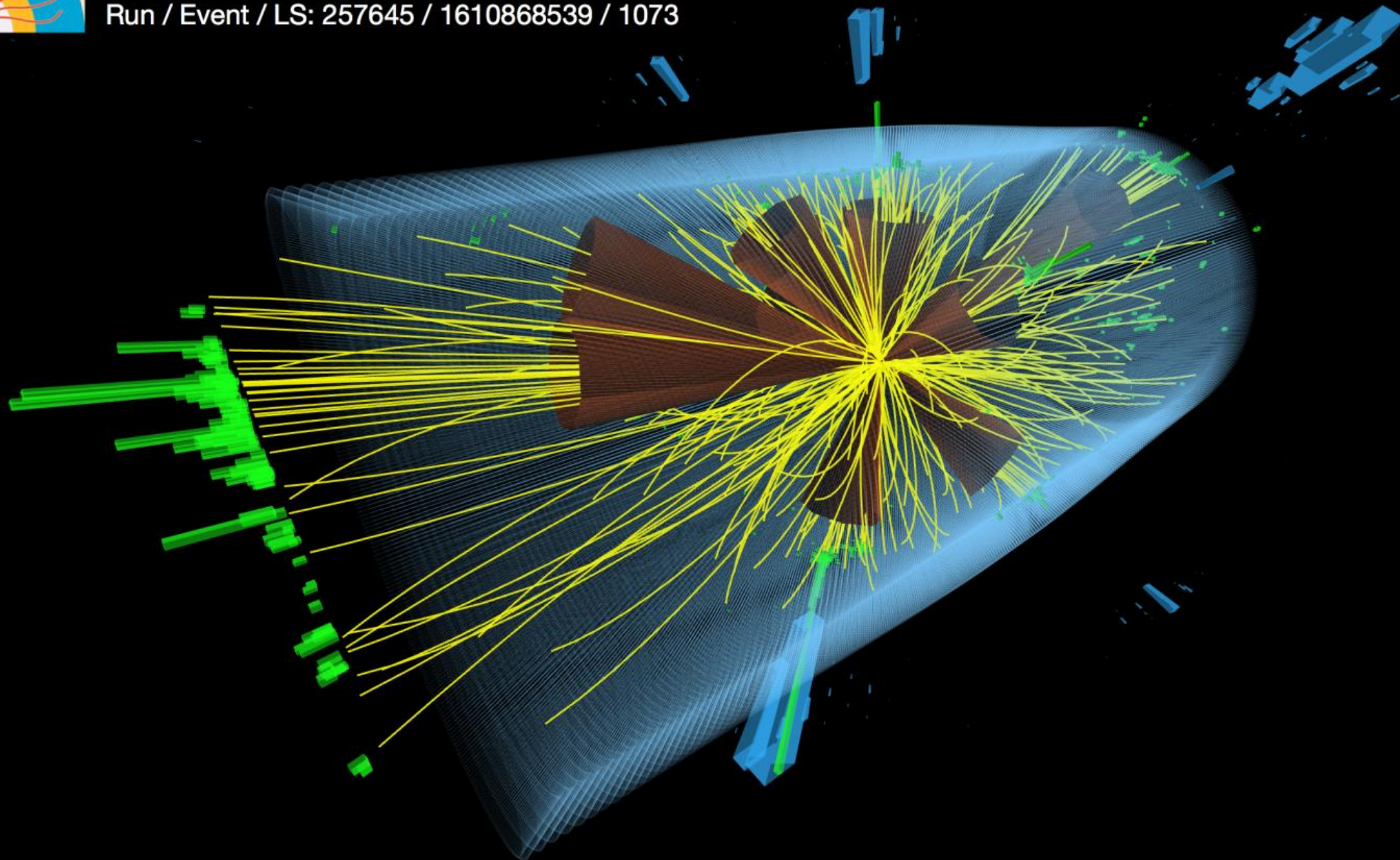




CMS Experiment at the LHC, CERN

Data recorded: 2015-Sep-28 06:09:43.129280 GMT

Run / Event / LS: 257645 / 1610868539 / 1073





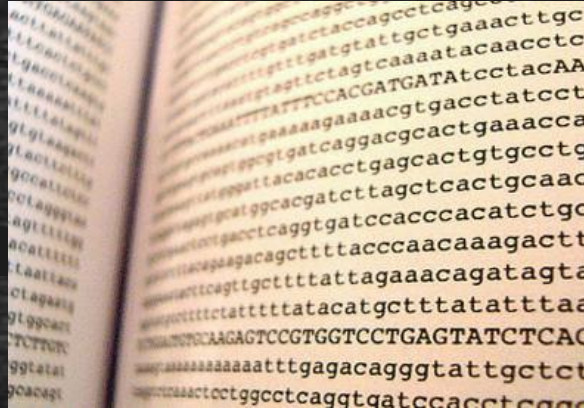
$$\int d^d k_1 \int d^d k_2 \frac{(k_1 + p_1)^2 (k_2 - p_3 - p_4)^2}{(k_1 + p_1 + p_2)^2 (k_1 - k_2)^2 (k_2 + p_1)^2 (k_2 + p_1 + p_2)^2 (k_2 - p_3)^2}$$





$[...] a^2 c^5 + 960 a^3 c^5 - 1200 a^4 c^5 + 480 a^5 c^5 + 720 a^2 c^6 - 1920 a^3 c^6 + 1200 a^4 c^6 - 720 a^2 c^7 + 960 a^3 c^7 + 240 a^2 c^8 + 2 c^5 e + 20 a c^5 e - 200 a^2 c^5 e + 560 a^3 c^5 e - 640 a^4 c^5 e + 256 a^5 c^5 e - 10 c^6 e - 80 a c^6 e + 600 a^2 c^6 e - 1120 a^3 c^6 e + 640 a^4 c^6 e + 20 c^7 e + 120 a c^7 e - 600 a^2 c^7 e + 560 a^3 c^7 e - 20 c^8 e - 80 a c^8 e + 200 a^2 c^8 e + 10 c^9 e + 20 a c^9 e - 2 c^{10} e - c^5 e^2 + 10 a c^5 e^2 - 40 a^2 c^5 e^2 + 80 a^3 c^5 e^2 - 80 a^4 c^5 e^2 + 32 a^5 c^5 e^2 + 5 c^6 e^2 - 40 a c^6 e^2 + 120 a^2 c^6 e^2 - 160 a^3 c^6 e^2 + 80 a^4 c^6 e^2 - 10 c^7 e^2 + 60 a c^7 e^2 - 120 a^2 c^7 e^2 + 80 a^3 c^7 e^2 + 10 c^8 e^2 - 40 a c^8 e^2 + 40 a^2 c^8 e^2 - 5 c^9 e^2 + 10 a c^9 e^2 + c^{10} e^2) / (-2 e + 20 c e - 90 c^2 e + 240 c^3 e - 420 c^4 e + 504 c^5 e - 420 c^6 e + 240 c^7 e - 90 c^8 e + 20 c^9 e - 2 c^{10} e + e^2 - 10 c e^2 + 45 c^2 e^2 - 120 c^3 e^2 + 210 c^4 e^2 - 252 c^5 e^2 + 210 c^6 e^2 [...]$

Chawdhry, Lim, Mitov (2019) *Phys. Rev. D* 99 076011

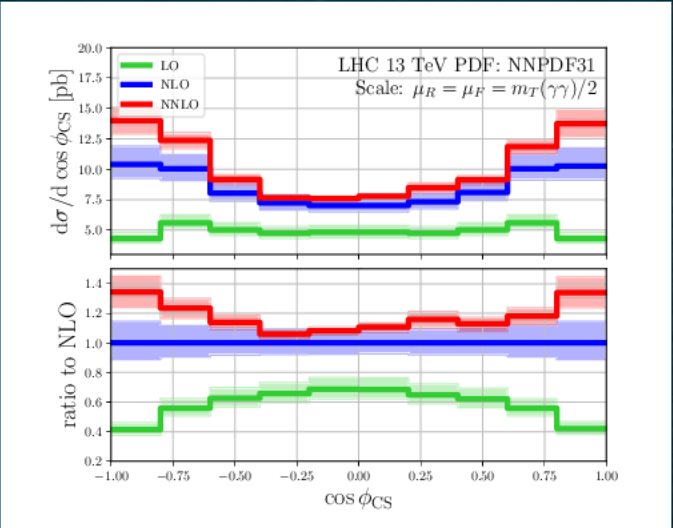
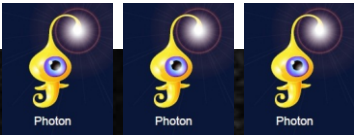
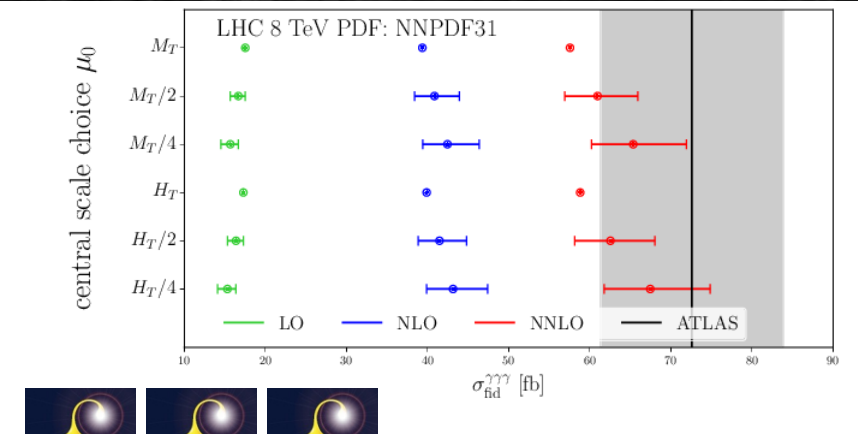




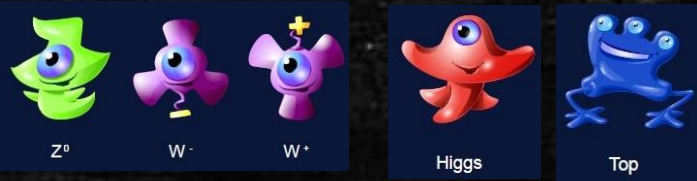
[...]  $a^2 c^5 + 960 a^3 c^5 - 1200 a^4 c^5 + 480 a^5 c^5 + 720 a^2 c^6 - 1920 a^3 c^6 + 1200 a^4 c^6 - 720 a^2 c^7 + 960 a^3 c^7 + 240 a^2 c^8 + 2 c^5 e + 20 a c^5 e - 200 a^2 c^5 e + 560 a^3 c^5 e - 640 a^4 c^5 e + 256 a^5 c^5 e - 10 c^6 e - 80 a c^6 e + 600 a^2 c^6 e - 1120 a^3 c^6 e + 640 a^4 c^6 e + 20 c^7 e + 120 a c^7 e - 600 a^2 c^7 e + 560 a^3 c^7 e - 20 c^8 e - 80 a c^8 e + 200 a^2 c^8 e + 10 c^9 e + 20 a c^9 e - 2 c^{10} e - c^5 e^2 + 10 a c^5 e^2 - 40 a^2 c^5 e^2 + 80 a^3 c^5 e^2 - 80 a^4 c^5 e^2 + 32 a^5 c^5 e^2 + 5 c^6 e^2 - 40 a c^6 e^2 + 120 a^2 c^6 e^2 - 160 a^3 c^6 e^2 + 80 a^4 c^6 e^2 - 10 c^7 e^2 + 60 a c^7 e^2 - 120 a^2 c^7 e^2 + 80 a^3 c^7 e^2 + 10 c^8 e^2 - 40 a c^8 e^2 + 40 a^2 c^8 e^2 - 5 c^9 e^2 + 10 a c^9 e^2 + c^{10} e^2) / (-2 e + 20 c e - 90 c^2 e + 240 c^3 e - 420 c^4 e + 504 c^5 e - 420 c^6 e + 240 c^7 e - 90 c^8 e + 20 c^9 e - 2 c^{10} e + e^2 - 10 c e^2 + 45 c^2 e^2 - 120 c^3 e^2 + 210 c^4 e^2 - 252 c^5 e^2 + 210 c^6 e^2 [...]$

Chawdhry, Lim, Mitov (2019) *Phys. Rev. D* 99 076011

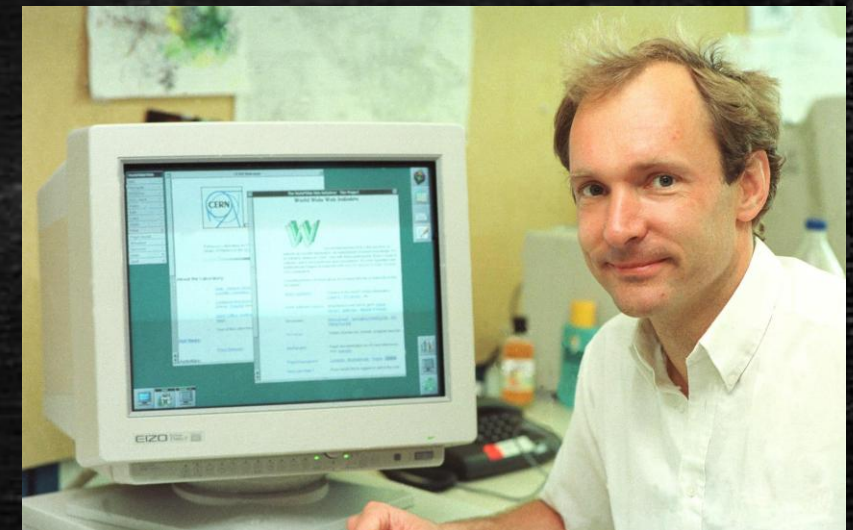
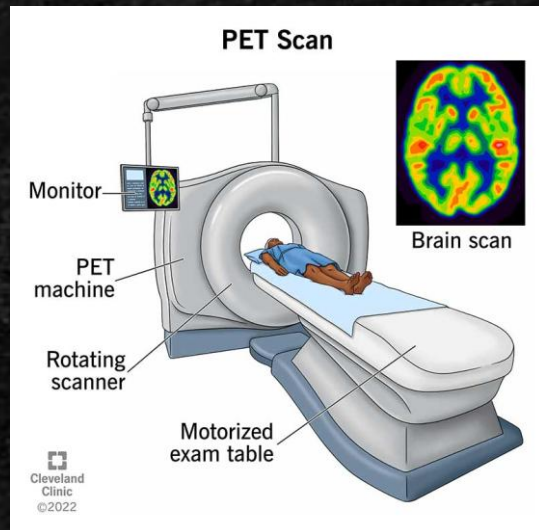
Chawdhry, Czakon, Mitov, Poncelet, *JHEP* 2002 (2020) 057



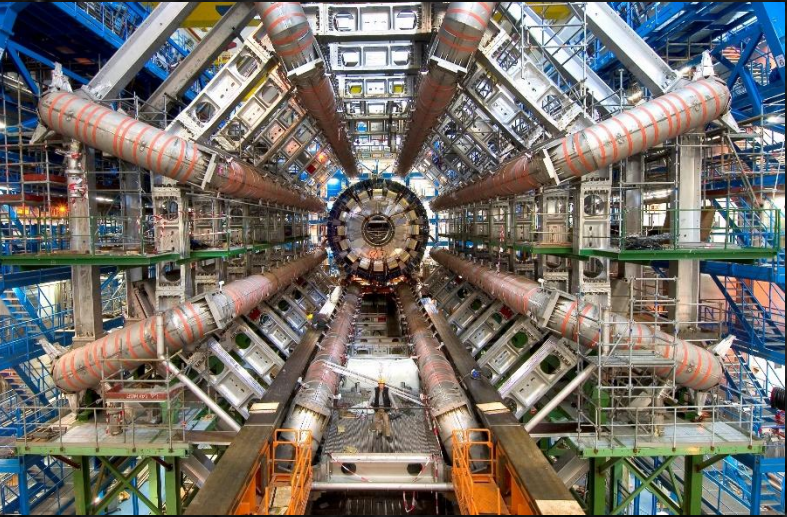
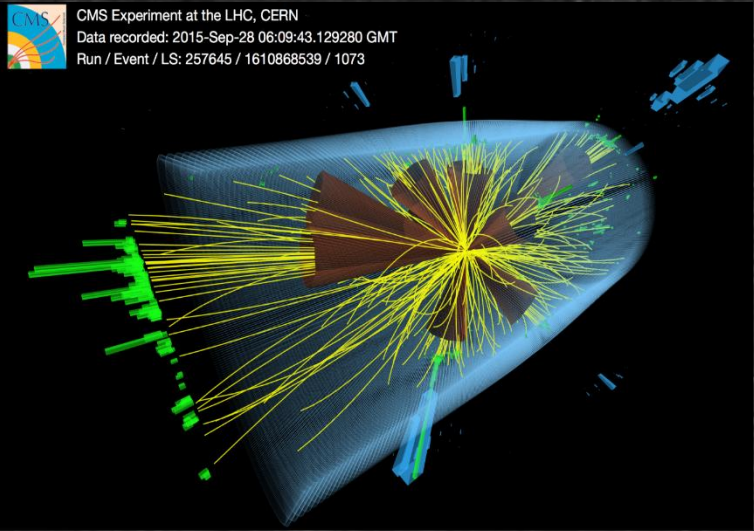
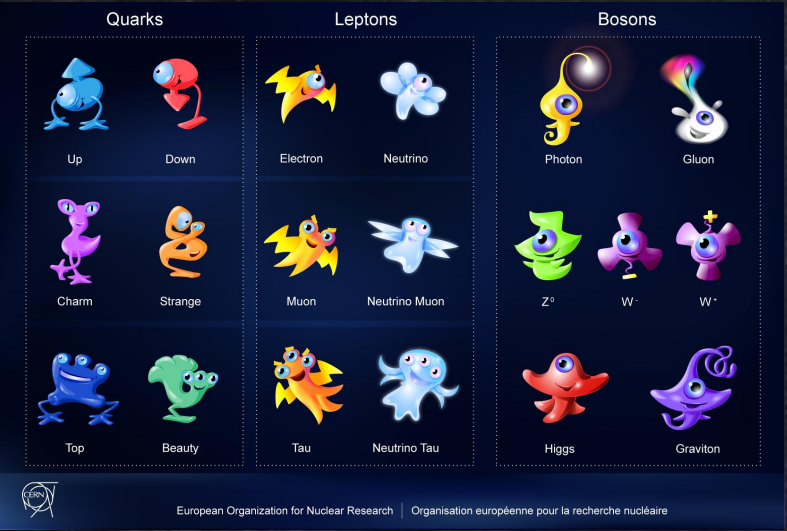
Chawdhry, Czakon, Miotv, Poncelet, *JHEP* 09 (2021) 093











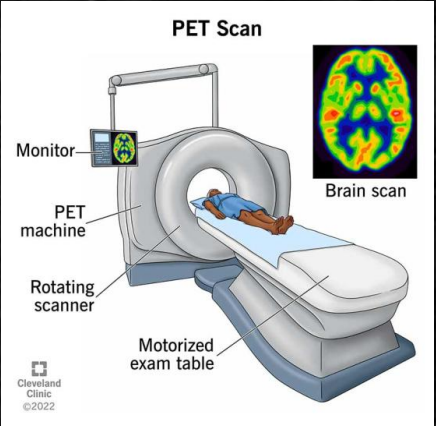
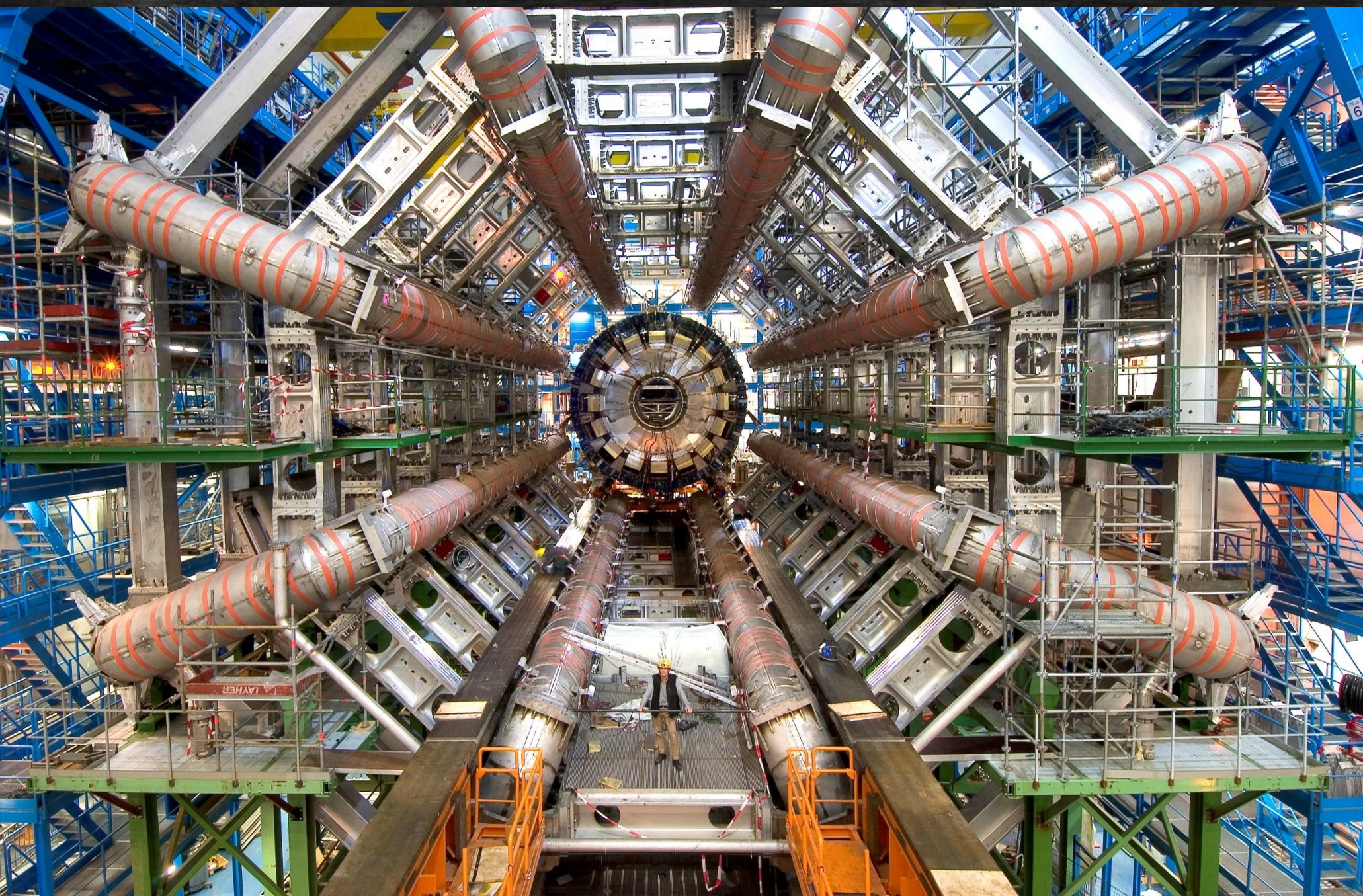


# BACK-UP SLIDES









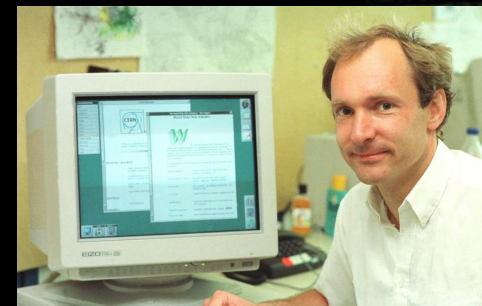
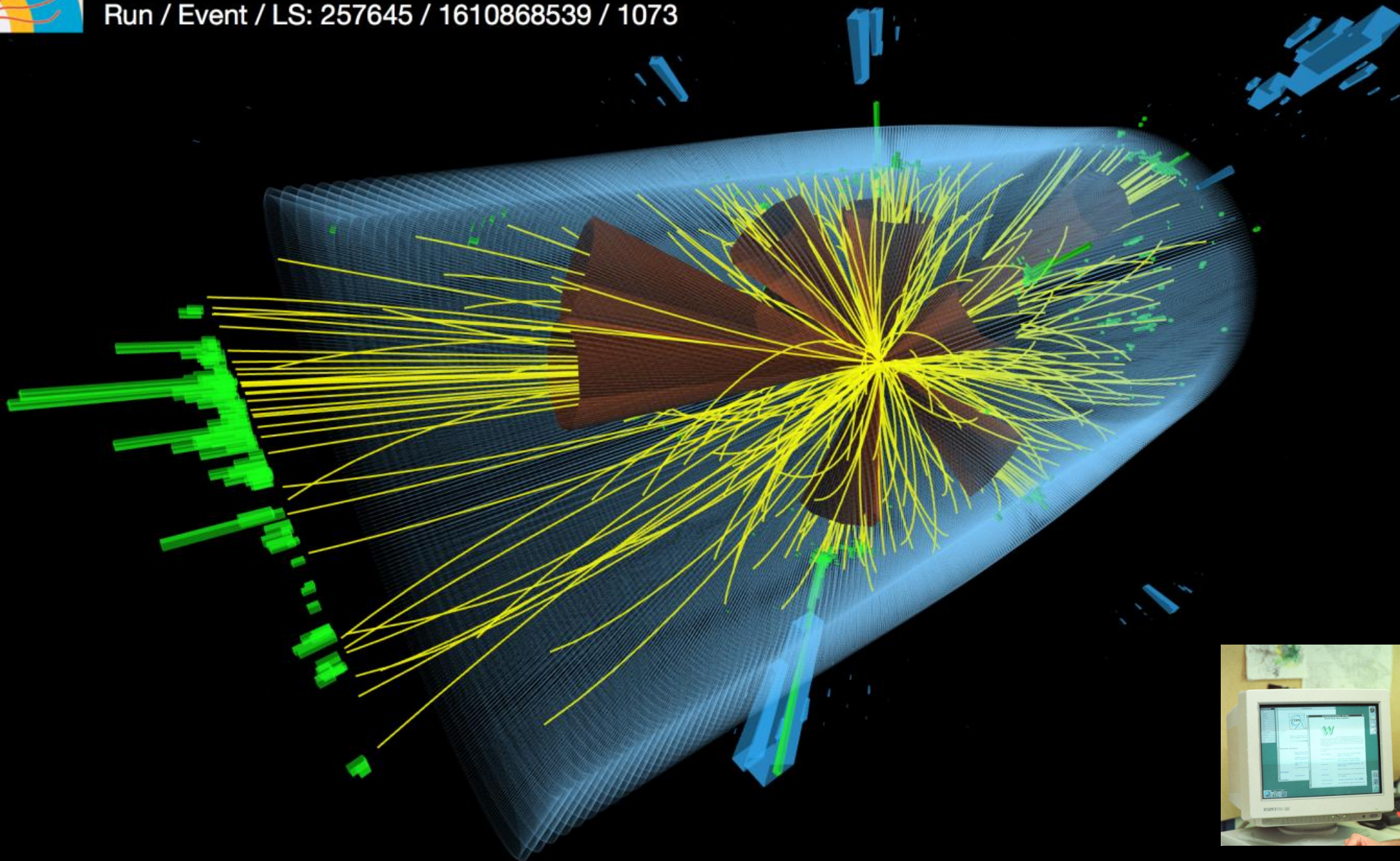




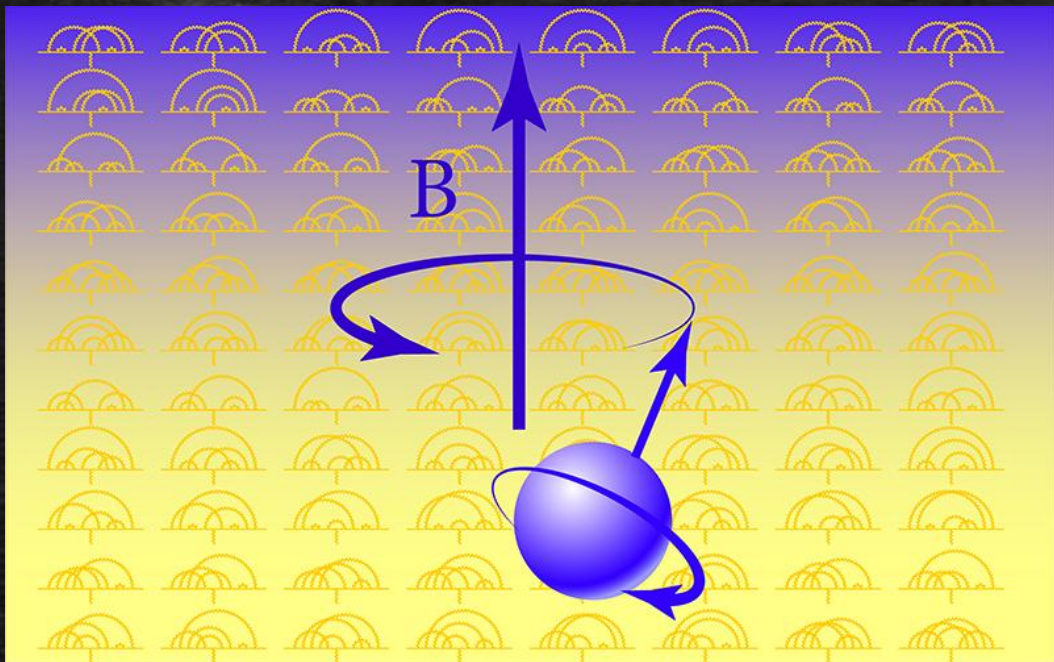
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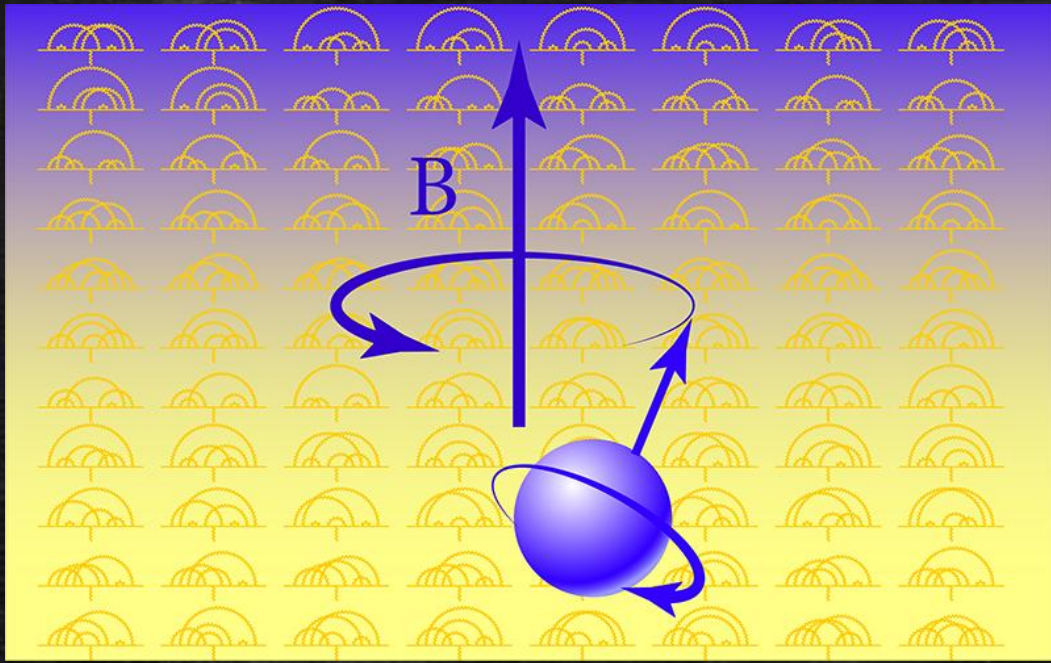






$$\mu_e = g \frac{e}{2m} S$$





$$\mu_e = g \frac{e}{2m} S$$

$$g_{\text{experiment}} = -2.0023193043618 \pm 0.00000000000005$$

$$g_{\text{theory}} = -2.0023193043641 \pm 0.00000000000014$$

# Acknowledgements



**Jing Wang**  
Dean and Professor  
PhD, MPH, RN, FAAN



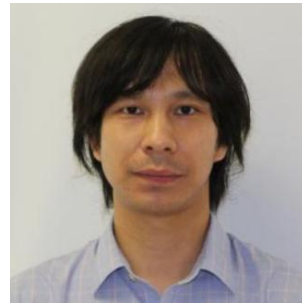
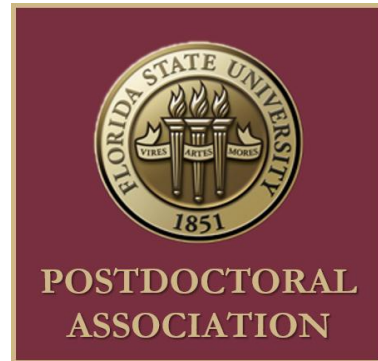
**Hye Jin Park**  
Associate Professor  
PhD, RN



**Hongyu Miao**  
Professor, Director of Brain  
Science & Symptom  
Management Center  
PhD



**Dan Song**  
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RN, PhD



**Chengdong Li**  
Data Scientist



**Buna Bhandari**  
Postdoctoral Scholar  
MPH, PhD



**Setor Kofi Sorkpor**  
Assistant Professor  
PhD, MPH, MSN, RN



**Brittany Lane**  
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PhD, MPH



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# PEOPLE'S CHOICE AWARD

**Vote for your favorite  
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# PEOPLE'S CHOICE AWARD

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Click Your Favorite Number!**



**1 – Ahinsa Ranaweera**

*The HIV Capsid: A Promising Target for Anti-HIV...*

**2 – Behrouz Ghazi Esfahani**

*SPOT-RASTR: A Novel Method To Prepare CRYO-EM Samples*

**3 – Herschel Chawdhry**

*Particle Physics and the Quest for High Precision*

**4 – Kasey Longley**

*Caring for Grandparent Caregivers: Identifying Support Needs for Older Adults Raising their Grandchildren*

**5 – Katherine Odeggaard**

*A Matter of Taste: Unveiling the “New” Region in Taste Processing*

**6 - Li Guo**

*How Does Overnutrition Lead to Diabetes?*

**7 - Pearl Rivers Key**

*Mate Choice Under the Sea: Exploring the Genetic Blueprint of Reproduction in Sea Urchins*

**8 – Shannon Griffin**

*Engineering Superconducting Magnets via Structural Simulations*

**9 – Stephen Yuwono**

*How Electrons Dance When Things Go Heavy and Fast*

**10 – Yijiong Yang**

*Addressing ADRD and COVID-19 Vaccination Hesitancy: Strategies for Enhancing Health Outcomes*

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# **AWARDS & RECEPTION**

**Please join us for refreshments  
and award presentations**

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PROGRAM END

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