

# SUNY BROOME

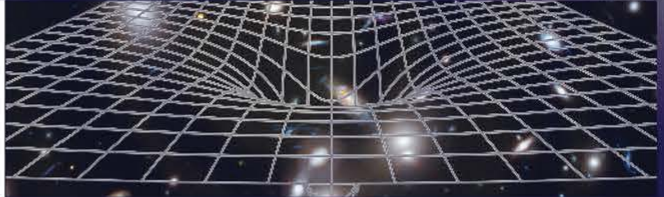
## MODERN PHYSICS LECTURE SERIES

05:00 PM – 07:00 PM | BUSINESS BUILDING RM 110 | SEE DATES

### SPECIAL RELATIVITY

FEBRUARY 5TH

Time Dilation, Length Contraction,  
Relativistic Momentum & Energy



### PHOTONS & MATTER WAVES

FEBRUARY 19TH

Light as Quantum Particles; Blackbody  
Radiation; Wave-Particle Duality

### QUANTUM MECHANICS

MARCH 5TH

Schrödinger's Equation; Heisenberg's  
Uncertainty Principle; Quantum Tunneling

$$\Delta x_i \Delta p_i \geq \frac{\hbar}{2}$$



### ATOMIC STRUCTURE

MARCH 19TH

The Hydrogen Atom; Pauli's Exclusion  
Principle; Electron Spin; Lasers

### CONDENSED MATTER PHYSICS

APRIL 2ND

Molecular Spectra; Band Theory of Solids;  
Semiconductor Devices; Doping



### NUCLEAR PHYSICS

APRIL 16TH

Properties of Nuclei; Radioactive Decay;  
Fission; Nuclear Fusion

### PARTICLE PHYSICS & COSMOLOGY

APRIL 30TH

Quarks; Particle Accelerators; The Big  
Bang; Evolution of the Early Universe

