

## **The Science of *His Dark Materials*—Topics**

### **Light**

*Electromagnetism*  
*The visual spectrum*  
*Our sun*  
*The nature of stars*  
*The Aurora Borealis*  
*Polarization of light*

### **Biology**

*Natural selection*  
*Human and animal adaptation*  
*Pollination*  
*Hummingbirds*  
*Photosynthesis*  
*Carbon cycle*  
*Interconnectivity*

### **Classical and Modern Physics**

*Dark matter*  
*Dark energy*  
*Gravity*  
*Newton's Laws*  
*Laws of Thermodynamics*  
*Atoms*  
*Particle physics*  
*Relativity*  
*The nature of spacetime*  
*Quantum mechanics*  
*String theory*  
*Entanglement*  
*Decoherence*  
*Many Worlds Theory*  
*Hidden dimensions*  
*Flatland*  
*Quantum computing*

### **The Science of Making Choices**

*What is happening in the brain during the act of making choices?*  
*Probability in quantum physics*  
*Self-locating uncertainty*  
*Dynamical collapse*  
*Negative capability*  
*The science of religious belief*  
*Free will vs. determinism*  
*Oracles and prophecies*  
*The I Ching*

## **The Unconscious Mind**

*Jungian analysis – archetypes, the collective unconscious, the shadow, the daimon*

*Dreaming*

*The hypnogogic state*

*Trances and altered states of consciousness*

*Sympathetic and parasympathetic nervous systems*

*The brain in equanimity*