



A Virtual Tour of TeachSpin's “Food Truck for the Physics Mind”

- 1.) [Diode-Laser Spectroscopy](#): Tuning the interaction of laser light with atoms
- 2.) [Two-Slit Interference](#): A quantum ‘thought experiment’ turned actual
- 3.) [Magnetic Force](#): Confronting the most persistent misconception in E&M
- 4.) [Optical Pumping](#): Enabling the *radio*-frequency spectroscopy of atoms
- 5.) [Quantum Analogs](#): The quickest way to build intuition for quantum-relevant wave behavior
- 6.) [Modern Interferometry](#): Exploiting micrometer, and nanometer, sensitivity to displacement
- 7.) [Foundational Magnetic Susceptibility](#): Para, dia, ferro, how many kinds of magnetism are there?
- 8.) [Room-Temperature Hall Effect](#): Determining the *sign* of charge carriers
- 9.) [Noise Fundamentals](#): When is electronic noise not a nuisance, but a resource?
- 10.) [Fourier Methods](#): What can you learn by ‘thinking in frequency space’?
- 11.) [Earth’s-Field Nuclear Magnetic Resonance](#): The singing of the waters
- 12.) [Torsional Oscillator](#): Exploring damped, driven, simple harmonic motion
- 13.) [Faraday Rotation](#): Proving there’s magnetism in the electromagnetism of light
- 14.) [Signal-Processor/Lock-In Amplifier](#): How to extract signals form noise
- 15.) [Condensed Matter Physics](#): Smart phones, liquid crystal displays, what’s next?
- 16.) [Magnetic Torque](#): The surprising results of magnetic torque vs. angular momentum
- 17.) [Nuclear Magnetic Resonance](#): The basis of the NMR technique in physics, chemistry, and MRI
- 18.) [Ultrasonics](#): What sound of *Mega*Hertz frequencies can do for you
- 19.) [Muon Physics](#): Particle Physics at your fingertips, any time and any place

For more photographs of the actual apparatus, experiment descriptions and Conceptual Introductions go to the [Instruments and Courses](#) page of the TeachSpin website and click on the Instrument Name.