

## TUTORIALS LIST

### COMMUNICATION:

- [1] Scientific Writing workshop: (Weeks and Swinney)
- [2] *Scientific Oral Presentation workshop*: (Swinney, Weeks)
- [3] *How to make a good scientific poster*: (Schoetz)
- [4] *Introduction to LaTeX*: (Rodenborn).
- [5] *Talking Science with Nonscientists*: (Showalter)

### Grants:

- [6] The research proposal and other techniques for raising funds (Niemela)

### General Topics:

- [7] Current events in Science: (Showalter)
- [8] Scientific Ethics: Case Studies and Conundrums: (Roy, Showalter)
- [9] Balancing Work and Personal Life: (Rericha, Schoetz, Weeks, Shattuck)
- [10] Research Project Design: (Schoetz, Xu)
- [11] Experimental Design Discussion: (Shattuck)
- [12] Modeling Design Discussion: (Shattuck)

### Image Analysis:

- [13] *Image Analysis and Object Recognition in MATLAB*: (Schoetz)
- [15] *More with shapes*: (Rericha)
- [16] Solving Simple PDEs: (TBA)
- [17] Numerical simulations of nonlinear systems using xppaut: (Sethia)
- [18] Modeling Biological Networks: (Rericha)

### Experimental Techniques:

- [19] *Electronic Digital Design for \$99*: (Shattuck)
- [20] *Dynamic measurements with strain gages and accelerometers*: (Goldman)
- [21] *Muscle activation during human locomotion*: (Goldman)
- [22] *Basics of Microscopy*: (Rericha).
- [23] *Introduction to circuits and data acquisition*: (Storey)

### Teaching

- [24] Practical Approaches for Overcoming Obstacles to Science Teaching and Research in the Developing World: (Nkomo)
- [25] Teaching Freshmen to Solve Science Problems Using a Computer: (Schatz, Suri, Tithof)
- [26] Hands-On tutorials on lecture demonstration: (Schatz, Suri, Tithof)
- [27] Peer Instruction: Interactive Engagement in the Classroom: (Schatz)

### Extensions To Hands-On Sessions:

- [28] Coupled Oscillators: (Gautam, Sethia)
- [29] Time series analysis of worm locomotion data: (Schoetz)
- [30] Time Delayed Electro-Optic Feedback System: (Roy)
- [31] Chemical Patterns: (Tinsley)
- [32] Extended session on Turbulence: (Schatz)
- [33] Extended introduction to Matlab: (Hunt, Storey)
- [34] Extended Molecular Dynamics Simulation: (Shattuck)
- [35] Extended mathematical Modeling of Biological System: (Ouyang)