



**Alliance For Physics Excellence (APEX)**  
**Fall Weekend Workshop**  
**Physics Teacher Institute (PTI) Activity Schedule**  
**Alabama A & M University**  
**October 17-18, 2014**



**Day 1 - October 17, 2014**

8:00 AM - 8:20 AM	Welcome/Greetings/Announcements	Mohan Aggarwal AAMU and APEX Leadership	Room 129 V. M. Chambers Building
8:20 AM - 9:00 AM	View & Discuss the <i>Physics Cinema Classics</i> "Projectile" or have participants view the classic PSSC film: <i>Free Fall and Projectile Motion</i> from 10:45 minutes - 14 minutes. <a href="https://www.youtube.com/watch?v=bUBEZuYP_FA">https://www.youtube.com/watch?v=bUBEZuYP_FA</a> View & Discuss the three minute Myth Busters video showing a bullet fired versus a bullet dropped at <a href="https://www.youtube.com/watch?v=cgIOknFz9L4">https://www.youtube.com/watch?v=cgIOknFz9L4</a> .	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
9:00 AM - 9:45 AM	Review of Motion Diagrams on Whiteboard.	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
9:45 AM - 10:30 AM	<b>Projectile Motion Activity #1</b> How Do the Vertical Rates of Fall Compare? Interesting observation by Galileo about falling objects. Ranking Task #19	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
10:30 AM - Noon	<b>Projectile Motion Activity #2</b> Range of Projectile	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
Noon - 1:30 PM	<b>Lunch (On Your Own)</b>		
1:30 PM - 2:30 PM	<b>Projectile Motion Activity #3</b> Speed of a Projectile. Individualized Birthday Projectile Problem	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
2:30 PM - 3:30 PM	<b>Projectile Motion Activity #4</b> How Fast was Ball Thrown off a Table? Ranking Task #47	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building

3:30 PM - 4:00 PM	Dual Motion Diagrams on Whiteboard.	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
4:00 PM - 6:00 PM	<b>Projectile Motion Activity #5</b> Analysis of Projectile Motion. Include Quadratic Fit with 4-step Analysis	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
<b>Day 2 - October 18, 2014</b>			
8:00 AM - 9:30 AM	<b>Projectile Motion Activity #11</b> Analysis of Projectile Motion Video? Include Quadratic Fit with 4-step Analysis	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
9:30 AM - 11:00 AM	<b>Projectile Motion Activity #6</b> Projectile Motion at an Angle	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
11:00 AM - Noon	<b>Projectile Motion Activity #7</b> Projectile Motion Using Parametric Equations	Jane & Jim Nelson AAPT/PTRA	Room 129 V. M. Chambers Building
Noon - 12:45 PM	<b>Lunch (In house)</b>		
12:45 PM - 1:45 PM	Making a video (.mov or .asi format) of a projectile using participants' personal camera. Analysis of video using Vernier's Logger Pro.	Marius Schamschula, AA&MU	Room 129 V. M. Chambers Building
1:45 PM - 2:00 PM	Workshop Evaluation/Closing Remarks	Mohan Aggarwal AAMU and APEX Leadership	Room 129 V. M. Chambers Building