

## Physics Day at Lagoon 2009

The twentieth annual Utah State University Physics Day at Lagoon was held on Friday May 15. This year USU Physics Department and the Idaho National Lab (INL) teamed to coordinate and run the event. There were approximately 6790 students and 326 teachers from 112 schools in four states [Utah, Idaho, Nevada and Wyoming] who attended. A number of special activities were added as part of the anniversary celebration. We added a lunch for participating teachers and for students on the top eight Physics Bowl teams. We also hosted the First Annual FIRST Robotics Utah/Idaho Grudge Match, with 4 teams participating. To complement this, 5 elementary schools with about 75 students participated in our first Lego Mindstorm Robotics Competition; this generated great enthusiasm and was featured in several news stories. A most exciting development was a large increase in the number of students participating in our organized activities, with an estimated *4015 students participating* (that is ~59% of those attending)! Finally, The USU Physics Department, USU College of Education, USU College of Science, USU Space Dynamics Laboratory and Idaho National Laboratory teamed to sponsor a one day teacher workshop on held Saturday May 16 on the USU campus. The workshop focusing on outreach for STEM (Science, Technology, Engineering and Mathematics) education had about 30 participants and contributors.

Event	High Schools	Middle Schools/ Junior High Schools
Physics Bowl	25 Teams, 75 Students	---
G-forces Contest	8 Teams, 33 Students	40 Teams, 191 Students
Demonstration Design Contest	13 Entries, 13 Students	15 Entries, 15 Students
Ride Design Contest	3 Entries, 3 Students	49 Entries, 49 Students
Logo Design Contest	14 Entries, 15 Students	168 Entries, 185 Students
Student Workbooks*	28 Schools, 1297 Students	23 Schools, 1450 Students
Sky Drop Contest	15 Schools, 174 Students (24 eggs survived)	22 Schools, 515 Students (82 eggs survived)
Total Contest Participation	1610 Participants	2405 Participants
Totals Registered (*Numbers in the table reflect actual registration. Estimates for Workbooks based on pre-registration.)	59 Schools 105 Teachers ~2750 Students	44 Schools 167 Teachers ~ 4040Students

About one hundred faculty, staff, and students from the USU Physics Department, ten INL staff, and about fifty-five additional judges and helpers from other sponsoring agencies were on hand to assist with registration, organization and contest judging. The number of sponsor displays continues to grow in both number and ability to impress the students. There were an estimated **\$30,166 in prizes awarded this year, in addition to as much as \$123,600 in scholarships to USU**. The top six students of the Physics Bowl were offered **four year scholarships to USU** by the USU Admissions Office. Sponsors included American Physical Society, ATK Space Systems, Boeing, Eastern Idaho Regional Medical Center, Hill Aerospace Museum, IM Flash Technologies, Lagoon, Micron, Moog Aircraft, North Wind Environmental, Pasco Scientific, Portage, PTC,

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Rocky Mountain NASA Space Grant Consortium, US Navy, USU College of Science, USU College of Education, USU Space Dynamics Laboratory, and USU Admissions Office.

Television coverage was provided by Ch. 5 in Salt Lake City. The Salt Lake Tribune, Deseret News, the Ogden Standard Examiner and USU Today also had nice stories to cover the event. Many stories were also posted on the internet, as listed below.

[http://www.sltrib.com/news/cj\\_12381583](http://www.sltrib.com/news/cj_12381583)

[http://investing.businessweek.com/businessweek/research/stocks/news/article.asp?docKey=600-200905160655KRTRIB\\_BUSNEWS\\_41762-2MIBGMT3RM7NBUQ3FVGSP7M8HF&params=timestamp%7C%7C05/16/2009%206:55%20AM%20ET%7C%7Cheadline%7C%7CFor%20kids%2C%20Physics%20Day%20a%20wild%20ride%3A%20Education%20%3F%20Elementary%20students%20invited%20for%20first%20time%20to%20USU%20event%20at%20Lagoon.%20%5BThe%20Salt%20Lake%20Tribune%5D%7C%7CdocSource%7C%7CKnight%20Ridder/Tribune%7C%7Cprovider%7C%7CACQUIREMEDIA&ric=BA](http://investing.businessweek.com/businessweek/research/stocks/news/article.asp?docKey=600-200905160655KRTRIB_BUSNEWS_41762-2MIBGMT3RM7NBUQ3FVGSP7M8HF&params=timestamp%7C%7C05/16/2009%206:55%20AM%20ET%7C%7Cheadline%7C%7CFor%20kids%2C%20Physics%20Day%20a%20wild%20ride%3A%20Education%20%3F%20Elementary%20students%20invited%20for%20first%20time%20to%20USU%20event%20at%20Lagoon.%20%5BThe%20Salt%20Lake%20Tribune%5D%7C%7CdocSource%7C%7CKnight%20Ridder/Tribune%7C%7Cprovider%7C%7CACQUIREMEDIA&ric=BA) (Business Week, Russ Randle mention)

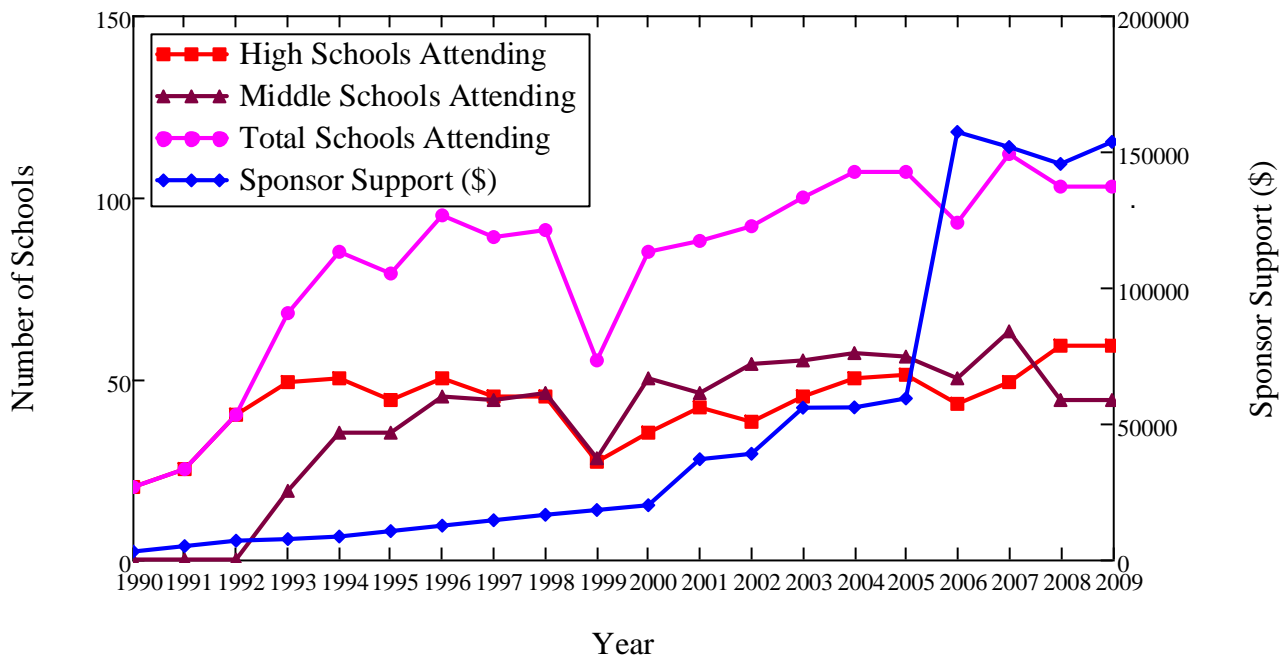
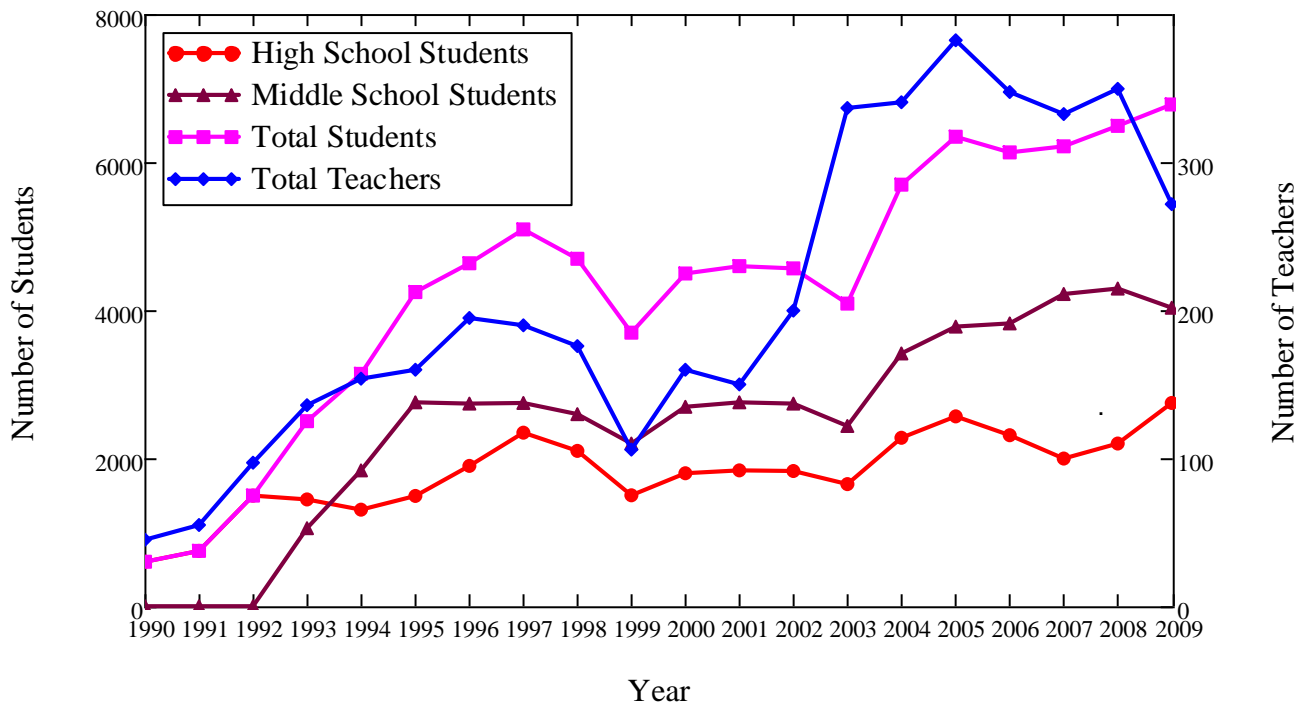
<http://www.usu.edu/ust/index.cfm?article=36528>

<http://www.standard.net/live/news/173442/>

<http://www.deseretnews.com/article/1,5143,705304510,00.html>

<http://answers.yahoo.com/question/index?qid=20090502133106AAcU9sT>

<http://callcenterinfo.tmcnet.com/news/2009/05/16/4183206.htm>



**Summary of Prizes awarded:**

Sponsor	Items	Quantity Awarded	Unit Price	Total Dollar Value
Lagoon	Season Passes	20	\$93.95	\$1,879.00
Lagoon	Day Passes	250	\$33.95	\$8,475.00
ATK Space Systems	Highlighters, etc	100	\$2.00 *	\$200.00
INL	Mugs, Pens, etc.			\$1062.00
PTC	Mathcad	20	\$120.00	\$2,400
Navy	Water Bottles, Pens, etc			\$100.00
				\$0
USU College of Science, RMNSGC, Thiokol, Boeing, INSGC, INEEL	T-shirts	525		\$1,975.00
USU College of Science, RMNSGC, Thiokol, Boeing, INSGC, INEEL	Purchased Prizes			<b>\$2,751.98</b>
USU High School Relations	Four Year Scholarship	6	\$20,600	\$123,600.00
<b>Total Prizes</b>				<b>\$123,600.00</b>

\* Estimated value.

# Committed.

### Summary of Purchased Prizes

Number	Item	Vendor	Date	Cost
1	Prizes: Neutron Stun Gun	Edmund	4/28/09	\$363.30
2	Prizes: Gyro Ring	Ed. Innovations	4/28/09	\$361.35
3	Prizes: Mirascope	Ed. Innovations	4/28/09	\$262.35
4	Prizes: Globe Strobe	Westminster	4/28/09	\$241.68
5	Prizes: Hydro Car	JC Penny's	2/15/09	\$900.00
6	Prizes: Measuring Things Beakers	Ed. Innovations	4/28/09	\$502.20
7	Prizes: Mysterious Glow Ball	Ed. Innovations	4/28/09	\$250.20
8	Prizes: Newton's Apple	Ed Innovations	4/28/09	\$89.85
9	Prizes: FunFly Sticks	Ed. Innovations	4/28/09	\$323.40
10	T Shirts	Badger Printing	4/20/09	\$1975.00
11	Candy, eggs, etc	Smiths	5/09	143.03
12	Prizes	Smiths	5/09	180.46
13				
14				
15				
16				
17				
	Total Purchased Prizes			\$5592.82

# Not yet spent.

### Summary of Sponsor Cash Contributions

Number	Item	Source	Date	Income
1	Contribution for prizes and workshop	USU College of Science	2/26	\$1250.00
2	Contribution for t-shirts	Boeing Corp.	4/22	\$2000.00
3	Contributions for operations	Lagoon	4/06	\$9000.000
4	Contribution for prizes	RMNSGC	02/02	\$500.00
6	Contribution for prizes	ATK Space Systems	5/29	\$500.00
7	Contribution for prizes	Micron	4/24	\$0.00
8	Contribution for workshop	BEA	5/06	\$1000.00
9	Contribution for prizes	INL(BEA)	5/29	\$1000.00
10	Contribution for prizes	Portage	5/08	\$500.00
11	Contribution for prizes	North Wind Environmental		\$0.00
12		EIRMC	5/15	\$100.00
13		USU Space Dynamics Lab	6/15	\$500.00
14		PTC		\$0.00
15		Navy		\$0.00
16		IM Flash Technologie (micron)s		\$0.00
		Moog Aircraft		\$0.00
17		USU College of Education	*	\$750.00
	Total Cash Contributions			\$17100.000

\* Support committed, but not yet received.

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**Summary of In-Kind Contributions**

<b>Number</b>	<b>Item</b>	<b>Source</b>	<b>Date</b>	<b>Income</b>
1	Prizes: 6 Four-Year Scholarships (\$19,312 each in state, \$55,201 each out-of-state)	USU Admissions Office	3/09	\$115,372.00
2	Prizes: Calculators, T-shirts etc.	INL	4/09	\$1062.00
3	Prizes: Highlighters, etc	ATK	4/09	\$0
4	Prizes: Water bottles, etc.	US Navy	4/09	\$100.00
5	Prizes: 250 Day Passes	Lagoon	4/09	\$11,250.00
6	Prizes: 20 Season Passes	Lagoon	4/09	\$2040.00
7	Prizes: Mathcad and Pro Engineer	PTC	4/09	\$10,480.00
	Prizes: Flash Drives	IM Flash	5/09	\$200.00
	In-Kind Prizes Subtotal		4/09	\$140,504.00
	Total In-Kind Prizes			\$140,504

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# ***PHYSICS DAY AT LAGOON 2009***

## ***SCHOOL PRIZES***

### **FIRST PLACE**

#### **Teachers**

2 Kick Disk Power Pucks  
Lagoon Day Pass  
2005 Physics Day T-Shirt

#### **Students**

Mirascope  
Gyro Ring  
Globe Strobe  
Lagoon Day Pass  
2009 Physics Day T-Shirt

### **SECOND PLACE**

#### **Teachers**

Nightstar Flashlight  
Hand Held DC Generator  
Buzz Magnets  
Lagoon Day Pass  
2005 Physics Day T-Shirt

#### **Students**

Neutron Stunt Top  
Globe Strobe  
Lagoon Day Pass  
2009 Physics Day T-Shirt

### **THIRD PLACE**

#### **Teachers**

Gyro Ring  
2 Rattlebacks  
Flip 'n Flyer  
Lagoon Day Pass  
2005 Physics Day T-Shirt

#### **Students**

i-top  
Lagoon Day Pass  
2009 Physics Day T-Shirt



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***PHYSICS DAY AT LAGOON 2009***

***PRIZES FOR STUDENT  
WORKBOOKS***

***STUDENTS SUBMITTING STUDENT  
WORKBOOKS WILL RECEIVE AN  
OPPORTUNITY TO PARTICIPATE IN A RANDOM  
DRAWING***

***HUNDREDS OF PRIZES INCLUDE***

***10 SEASON PASSES TO LAGOON  
25 DAY PASSES TO LAGOON  
OTHER GREAT PRIZES***

and

***Candy for Every Entry!!!***

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**UTAH STATE UNIVERSITY**  
**PHYSICS DAY at LAGOON**

**CONTEST WINNERS (2009)**

**PHYSICS BOWL**

**First Place:**

Riverton High School  
Mr. Justis, Advisor  
12575 S Silverwolfway  
Riverton, UT 84065

Samuel White  
Riverton, UT 84096

Nathan Burton  
Riverton, UT 84065

Ryan Carlsen  
Riverton, UT 84065

**Second Place:**

Mountain View High School  
Mrs. Russo, Advisors  
665 W Center St  
Orem, UT 84058

Justin Liu  
Orem, UT 84058

Elise Meiners  
Orem, UT 84058

Emily Lazalde  
Lindon, UT 84042

**Third Place:**

Viewmont High School  
Mrs. Colister, Advisor  
120 W 1000 N  
Bountiful, UT 84010

Jeremy Dalrymple  
Centerville, UT

Logan Gunner  
Bountiful, UT

Marcus Murdock  
Bountiful, UT

**Fourth Place:**

Weber High School  
Mr. Hales, Advisor  
3650 N 500 W  
Pleasant View, UT 84414

Peter Hartuigsen  
North Ogden, UT

Jacquelyn Jones  
North Ogden, UT

Jared Baxter  
North Ogden, UT

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**PHYSICS DEMONSTRATION DESIGN CONTEST**  
**HIGH SCHOOL DIVISION**

**First Place:**

Century High School  
Deborah Hobdey, Advisor  
7801 Diamondback Dr  
Pocatello, ID 84003

Andrew Marquette, Ethan Davis  
Mark Tatham, Lys H Labrum

**Second Place:**

Century High School  
Deborah Hobdey, Advisor

7801 Diamondback Dr  
Pocatello, ID 84003

Keith Zitterkofit, Sasha Heyueman

**Third Place:**

Century High School  
Deborah Hobdey, Advisor  
7801 Diamondback Dr  
Pocatello, ID 84003

Jamie Howard, Callie Schmidt  
Jessica Oneida, John Sousa

**PHYSICS DEMONSTRATION DESIGN CONTEST**  
**MIDDLE/JUNIOR HIGH SCHOOL DIVISION**

**First Place:**

Kaysville Jr. High School  
Mark Tolman, Advisor  
100 E 350 S  
Kaysville, UT 84837

Christine Barlow

**Second Place:**

Kaysville Junior High School  
Mark Tolman, Advisor

100 E. 350 S.  
Kaysville, UT 84837

Carrie Jacobs

**Third Place:**

Grantsville Junior High  
Carol Huston, Advisor  
308 S Hale St  
Grantsville, UT 84029

Shaleece Merrell  
Kirsten Sloan

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**RIDE DESIGN CONTEST**  
**HIGH SCHOOL DIVISION**

**First Place:**

Wasatch High School  
Mr. Cowan, Advisor  
64 E 600 S  
Heber City, UT 84032

“Monu Mountain”

AJ Bendal

“Curse of Timpanogos”

Taylor Baird

**Third Place:**

Intech Collegiate High School  
Dr. Stephainie Kawamura, Advisor  
1787 N Research Parkway  
North Logan, UT 84341

**Second Place:**

Logan High School  
Kellie Yates, Advisor  
162 W 100 S  
Logan, UT 84321

“Side Winder”

Christian Seitter  
Bradles Knowlton  
Diya Zivo

**RIDE DESIGN CONTEST**  
**MIDDLE/JUNIOR HIGH SCHOOL DIVISION**

**First Place:**

North Layton Jr. High School  
Michael Archibald, Advisor  
1100 W 2000 N  
Layton, UT 84041

Kimberly Hulse

“Archicoaster”

Sage Harrison  
Julie Torig  
McKayla Chaffee  
Sara Bowker

**Third Place:**

Kaysville Junior High School  
Mark Tolman, Advisors  
100 E 350 S  
Kaysville, UT 84837

“The Knott”

Brianne Condie  
Katelyn Blood

**Second Place:**

Kaysville Junior High School  
Mark Tolman, Advisors  
100 E 350 S  
Kaysville, UT 84837

“Underwater Rollercoaster”

Lindsey Greer

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**LOGO DESIGN CONTEST**  
**HIGH SCHOOL DIVISION**

**First Place:**

InTech Collegiate High School  
Dr. Stephanie Kawamura, Advisor  
1787 Research Parkway  
North Logan, UT 84341

Marcquessa Kanip-Johnson

**Second Place:**

InTech Collegiate High School  
Dr. Stephanie Kawamura, Advisor  
1787 Research Parkway  
North Logan, UT 84341

Musa Abdullahi

**Third Place:**

Brighton High School  
Doug Baird, Advisor  
2220 Bengal Blvd  
Cottonwood Heights, UT 84121

Sahn Woo Park

**LOGO DESIGN CONTEST**  
**MIDDLE/JUNIOR HIGH SCHOOL DIVISION**

**First Place:**

Kaysville Junior High School  
Mark Tolman, Advisor  
100 E. 350 S.  
Kaysville, UT 84037

Taylor Edwards

**Second Place:**

North Layton Junior High School  
Jenica Paterniti, Advisor  
1100 W 2000 N

Layton, UT 84041

Janey Maher

**Third Place:**

Bountiful Junior High School  
Deanne Maggio, Advisor  
30 W 200 N  
Bountiful, UT 84010

Jayden Jones

Mark Macklyn

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**COLOSSUS' COLOSSAL G-FORCES CONTEST**  
**HIGH SCHOOL DIVISION**

**First Place:**

InTech High School  
Dr. Stephanie Kawamura, Advisor  
1787 Research Parkway  
North Logan, UT 84341

Dylan Durrant

Tyler Lewis  
Jacob Elwood

**Second Place:**

**Third Place:**

**COLOSSUS' COLOSSAL G-FORCES CONTEST**  
**MIDDLE/JUNIOR HIGH SCHOOL DIVISION**

**First Place:**

Churchill Junior High School  
Brian Lestarge, Advisor  
1632 S Stewart St  
Salt Lake City, UT 84104

Comib Elias  
Anita Lin  
Maddy Jensen  
Emma Larson  
Jordan Keller

**Third Place:**

Churchill Junior high School  
Brian Lestrangle, Advisor  
1632 S Stewart St  
Salt Lake City, UT 84104

Tyler Pistorzus  
Brenner Birth

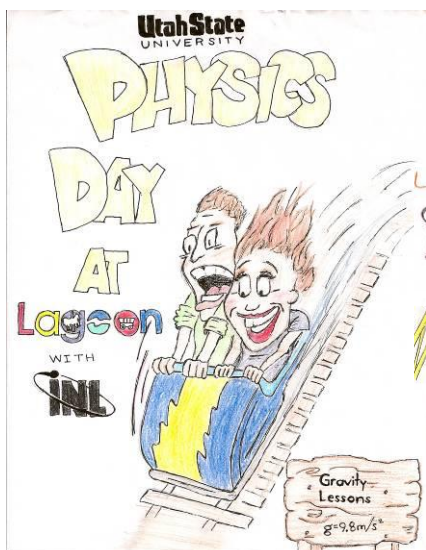
**Second Place:**

Burley Junior High School  
Carrie Carson, Advisor

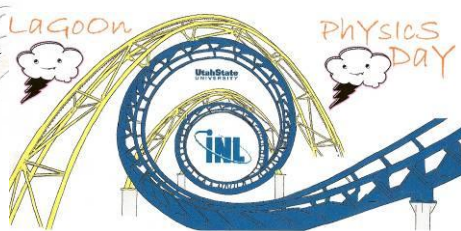
Tucker Lechemmant  
Dominic Shaw  
John Lenkersplorker

# 2009 Logo Contest Winners

## High School Winners



First Place  
 Marcquessa Kanip-Johnson  
 InTech Collegiate High School  
 Dr. Stephanie Kawamura,



Second Place  
 Musa Abdullahi  
 InTech Collegiate High School  
 Dr. Stephanie Kawamura,

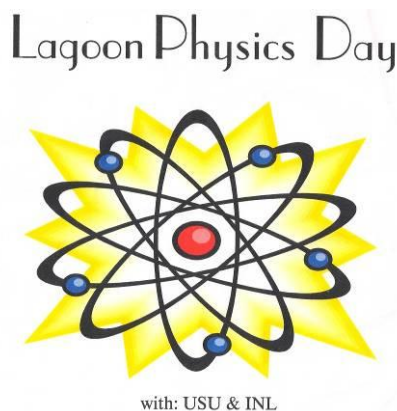


Third Place  
 Sahn Woo Park  
 Brighton High School  
 Doug Baird, Advisor

## Middle School Winners



First Place  
 Taylor Edwards  
 Kaysville Junior High  
 Mark Tolman, Advisor



Second Place  
 Janey Maher  
 North Layton Junior High  
 Deborah Patterniti, Advisor



Third Place  
 Jayden Jones  
 Bountiful Junior High School  
 Deanne Maggio, Advisor

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The value of the scholarships will vary depending on whether the student is a resident or nonresident (resident \$13,000 ea., nonres. \$20,600 ea.).  
If the 1st place winners (3) and second place (3) are all nonresident students and they all come to USU, the total amount would total \$123,600. We would like to add a bonus for the 1st place winners of a \$500 book scholarship for each if the Bookstore comes through. we are still waiting on them to decide. If they do, it would add \$1,500 to the total possible value of the prizes offered (\$125,100)

Marie has agreed to donate \$1500 this year. She wanted \$1000 to go toward higher education for deserving students but since last year it was a challenge to link scholarship money to a winning contestant, I had an idea. I thought we could use the money we set aside as scholarship money last year to be used as prize money but specifically make these prizes \$250 gift certificates to Textbook.com. This way it would help students with their college expenses but not create such a administrative burden for your department. Mrs. Putnam was excited about the idea.

I hope this will be acceptable to the requirements of the USU as a well. In short, Marie would like \$500 to be allocated to the general fund and \$1000 be divided into gift certificates to textbook.com. What are your thoughts on this plan?