# WELCOME!

We look forward to your school's participation at the NJAAPT sponsored "NJ Physics Olympics" to be held on Saturday, January 19<sup>th</sup>, 2019 at Monmouth Regional High School for North/Central New Jersey and, new for this year, at Washington Township High School (Gloucester County) for South New Jersey. Schools may choose <u>one location</u> at which to participate. The competition is a lot of fun and your students will meet, share experiences, and compete with other students from various parts of New Jersey.

In order to participate, you *must be a member of NJAAPT* and register on the NJAAPT Site: njaapt.wildapricot.org.

Rules & directions can also be obtained on this site. No purchase orders can be accepted. The fee will be reduced to **\$26.00 per team** if the team registers by **December 15, 2018.** (Late registration is \$37 per team). Each team may have up to six members.

Each high school must have **at least one faculty member** accompanying the team who will be asked to help judge one of the events. More than one faculty member will be welcomed. **We could really use the help.** 

On the day of the Olympics, plan on arriving for the final registration between 8:00 am and 9:00 am. **The first event begins at 9:00am.** The day's activities should **conclude around 2:30pm.** 

You may bring your own **box lunches**. The cafeteria will not be open. Morning refreshments will be served (coffee, tea, juice, bagels and donuts). Please note that there are no restaurants walking distance from the school. You may arrange to have pizza/subs delivered.

\*\*Since there are a maximum number of teams that we will be able to handle, we may have to ask for a multiple- team school to only send one team. Should this happen we will notify you by January 7, 2019. Fees for eliminated teams will be refunded.

## **EVENTS**

PLEASE NOTE: The following are only brief descriptions of each event. Full rules, competition scoring procedures, and the scoring formula can be obtained at:

#### njaapt.wildapricot.org

- FERMI QUESTION To estimate the order of magnitude of a quantity that is difficult or impossible to measure.
- GRAB BAG Teams will be given supplies to build a device that solves a challenge.
- COFFEE CAN RACER Design and build a coffee can racer that will roll down a ramp in the greatest amount of time.
- THE CATAPULT-Design and build a catapult that will launch a penny
- THE EGG CATCHER- To construct a device (catcher) of minimum height into which a raw egg will be dropped from a height of not more than 14 feet and that will enable the egg to survive intact (uncracked).
- ZERO IMPACT VEHICLE To design a vehicle which, when released eight meters from a wall, will move as close as possible to a wall without touching it.

Updates to the rules and Forum discussion/ questions with answers are available by going to the NJAAPT website: <u>njaapt.wildapricot.org</u> (top menu, "Events/Physics Olympics 2019". Questions about rules can be submitted on the "Forum").

It is the team's responsibility to periodically check the website or inquire about changes and clarifications to the rules.

# AWARDS

Participants at each location will be awarded the following trophies:

#### Six First Place Trophies

One for the highest score in each of the six events.

#### One Third Place Overall Trophy

To the team with the third highest overall score in all six events.

#### One Second Place Overall Trophy

To the team with the second highest overall score in all six events.

One *First Place Overall* Trophy To the team with the highest overall score in all six events.

# The NJ PHYSICS OLYMPICS SILVER SERIAL BOWL

The first place trophy team will also receive the NJ Physics Olympics Serial Bowl. The name of the winning team's school will be engraved on the bowl and that school will proudly display it in their school's trophy case until the 2020 Physics Olympics.

### **REGISTRATION**

Register by logging onto the NJAAPT Site: (you must be a member of NJAAPT)

#### njaapt.wildapricot.org

You will be asked to choose a location:

North/Central New Jersey Monmouth Regional HS

Southern New Jersey Washington Township HS (Gloucester County)

A team can have up to 6 students. A school may enter more than one team. (see \*\* note on "Welcome" page above)

Fee: Earlybirds: \$26.00 for each team entered by December 15, 2018.

Late registration is \$37 per team after December 15, 2018.

No purchase orders can be accepted.

Payment in advance required.

If using school invoice, please pay in advance, and a refund will be sent to you when your school check has been received

## **Contacts**

**Registration questions?** 

North/Central New Jersey - email John Valente at: jvalente@ctemc.org

South New Jersey - email Nancy Michaelsen at: hhsphysics@comcast.net

Questions concerning the events and rules: please log onto the NJAAPT site and go to the Physics Olympics 2019 page (under "Events"), or to the "Forum".

# **COMMITTEE**

NJAAPT Executive Board Members

# The New Jersey Section of the

# AMERICAN ASSOCIATION OF PHYSICS TEACHERS (NJAAPT)

Invites you and your school to the

# 2019 NEW JERSEY PHYSICS OLYMPICS

on

### Saturday January 19<sup>th</sup>, 2019

at

2 Locations (choose 1!):

<u>North/Central New Jersey</u> Monmouth Regional HS

Southern New Jersey Washington Township HS (Gloucester County)

Outline of this year's events with registration instructions and deadlines are inside.