

Dear students, parents, teachers,

This letter is to inform you about a new learning opportunity for high school students. We apologize if you receive this letter more than once.

SchoolNova at Stony Brook, the weekend enrichment program is happy to announce the first meeting of the **Advanced Physics Club (APC)** for high school students. The meeting is going to take place on **September 22, 2019, at 2:40 pm in the room P-122 on the ground floor of the Physics Building** on the campus of Stony Brook University.*

This club is intended for high school students (grades 10-12) who enjoy solving challenging physics problems. It will not have a set curriculum; instead, we will be solving and discussing problems from various physics Olympiads and competitions from Physics Bowl to International Physics Olympiad (IPhO). There will be also some instructive sessions about various topics in physics, such as mechanics, thermal physics, electromagnetism, etc. We expect students to know basic physics. In the club, we will be applying this knowledge to solving elegant physics problems both simple and very challenging. The club will be run by faculty, postdocs and students from Stony Brook University, many of whom are former participants of IPhO and other high-level competitions. You can find the Club's program for the last academic year here:

https://schoolnova.org/nova/classinfo?class_id=adv_phy_club&sem_id=ay2018

The participation in APC will be free of charge for students. SchoolNova will cover all expenses for rent, insurance, and other expenses for running the club. In the future, we will also be looking for other sources of funding.

The success of the Club crucially depends on having the brightest and most motivated students as its members. There is no better way to find such students than to ask their teachers to help. If you have students who like being challenged by physics problems and would enjoy working with equally motivated peers and active physics researchers in an informal club setting, please, let them know about this opportunity!

To sign up for club students may write an email to apc@schoolnova.org or simply come to the first meeting of the club announced above. If you or your students have additional questions, please, feel free to write to apc@schoolnova.org at any time.

Sincerely Yours,

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*Notice that on the same day but in P-123, 1-2pm there will be an organizational meeting of the **advanced math club** (everybody is welcome to its first meeting as well). This club has a separate web page:

https://schoolnova.org/nova/mathclub_adv

You can find more information about the **Advanced Physics Club** and SchoolNova on the following web pages

<https://schoolnova.org>

https://schoolnova.org/nova/physics_club

https://schoolnova.org/nova/classinfo?class_id=adv_phy_club&sem_id=ay2018

Below we give an example of a relatively simple but elegant physics problem to give you and your students an idea of the problems to be discussed in club meetings.

PROBLEM

The Engine's velocity is slowly increased until the dimes on A,B,C fly off the wheels. Which of the set of dimes flies off first? second? last?

The coefficient of friction between the dimes and the wheels is assumed to be the same for all three wheels.

