



May 29, 2020

Dear QuarkNet teachers,

We are excited to announce our first-ever Virtual Data Camp, taking place from July 6–10, 2020. Our goal is to revisit certain aspects of the usual Data Camp experience and extend them to be more heavily focused on integrating programming languages into the physics classroom.

Because this is a different experience than previous camps, we encourage Data Camp alumni to apply so that they can extend on the work they did the first time around.

### **What's in it for you?**

- We will provide the usual \$500 stipend for the week.
- We will also provide a small equipment budget up to \$250 per teacher for technical supplies (which could be used e.g., to buy a cheap Chromebook if you don't own one); you will need to submit receipts.
- You can earn graduate credit for this workshop through the University of St. Francis.

### **What do you need?**

- A reliable Internet connection
- A Google account that is unconnected to your work e-mail
- Free time during the day; having kids at home is challenging, and we have built in some flexibility, but you should still make arrangements to be free during working hours.
- A desktop or laptop computer
- A willingness to work remotely in a team on a challenging task
- Familiarity with the Standard Model, a basic understanding of the design of particle accelerators and detectors, and at least some experience with the activities in the QuarkNet [Data Activities Portfolio](#).

### **What will you do?**

1. Become familiar with Jupyter notebooks and practice writing code to perform simple tasks and analyses. See an example [here](#) and try it out; this will be a good indicator of whether you will find it interesting and doable.
2. Develop your coding skills and apply them by analyzing real data from the CMS experiment.
3. Extend these skills and tools to new datasets and areas of physics.
4. Design investigations and activities to be used with your students in the classroom and develop a plan for implementation.

### **I'm interested! What should I do to apply?**

- Complete the sample activity in the link above, and e-mail your block of code in the final step to [tiquarknet@gmail.com](mailto:tiquarknet@gmail.com) **by Friday, June 5.**

Sincerely,

The QuarkNet Teaching and Learning Fellows  
(Gerry Gagnon, Jodi Hansen, Adam LaMee, Jeremy Smith)