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websights

• *Top online pandemic physics teaching recommendations from <physport.org>*

"I suddenly have to move my face-to-face physics/ astronomy course online! What should I do?"

"Strategies and Resources for teaching your physics course online on short notice"

"I suddenly have to move my lab course online! What should I do?"

Most U.S. introductory physics instructors are now engaged in "remote disaster teaching"—trying to teach online for the first time ever with little or no planning or advanced preparation.To date, the most succinct and thoughtful discussions of these resources I have encountered are found in papers written by Linda Strubbe and Sam McKagan of PhysPort.org and a separate paper by Chandralekha Singh, University of Pittsburgh and current AAPT President. Please remember that this isn't a time to go overboard with all of these wonderful new online resources that you discover, and try to be kind to yourself and your stressed out students in these extraordinarily challenging times. Use these tools reflectively and in moderation, and please take care of yourself and help your students to take care of themselves.

• *COVID-19 / CoronaVirus Models*

tinyurl.com/WS-CV-MP
aatishb.com/covidtrends/
tinyurl.com/WS-CV3b1b-exp
tinyurl.com/WS-CV3b1b-sim

Last month's column discussed COVID-19 / CoronaVirus modeling, and unsurprisingly a large number of physicists, numerical modelers and mathematicians have undertaken more models. Henry Reich's MinutePhysics YouTube episode "How to Tell if We're Beating COVID-19" discusses data interpretation and representation and the importance of additional cases, and that particular data format is also updated regularly at aatishb.com. Grant Sanderson's 3Blue1Brown episodes "Exponential Growth and Epidemics" and "Simulating an Epidemic" are nice treatments that dig into the mathematical details of simple models describing an epidemic at appropriate levels for our introductory students without being too bleak about the human tragedy. These model-discussing videos are nice foils to the well-advertised online black box models run by the *New York Times, The Washington Post, The Economist,* the Institute for Health Metrics and Evaluation (healthdata.org) and the Johns Hopkins CoronaVirus Resource Center. It is important to keep in mind that these public models based on CDC data at this point in time represent an extreme lower bound on the pandemic, reporting only test-confirmed data which at this point of woefully inadequate testing means really just assessing the testing itself. Even the reported deaths data are an incomplete lower bound. Inform yourself, and take care out there.

• *Jeremy Fielding teaches practical motors (and more)*

tinyurl.com/WS-FieldingVidz

Mr. Fielding's YouTube channel dedicated to making, tinkering, inventing and teaching explores the recycling of old appliances—specializing in washing machine motors. His practical maker video series explores how motors work, how to recover them, wire and control and measure their output, and the many things you can make with motors. Watching his tinkering and his budget construction of homebrew shop equipment accompanied by gentle insightful discourse reminds me of a "Mr. Rogers" like figure for the maker community. More Mr. Fielding will get us through the pandemic.

• *Franklin: Electric Fields and potentials in 3D for Mac*

http://highcliffsoftware.com/

I just wanted to share a recent (re-)discovery for the macOS users out there. For many years I used a piece of software called "Franklin" for classroom demos and the like. It did a wonderful job of visualizing electric potentials and fields in 3D, and is highly configurable. Like many pieces of educational science software (Atom in a Box, anyone?), I was sad to leave it behind when I moved all my machines to Catalina. But I just recently discovered that the developer has released a 64-bit version of Franklin that runs fine on Catalina. I encourage the macOS users in the crowd to download and play with it. It's gorgeous. It absolutely DOES require you to read the manual though … it takes a little getting used to. Have fun! *Reported by David Craig <http://www.panix.com/~dac/>*

•*Summer Professional Development for Physics teachers*

phystec.org/pd/
modelinginstruction.org/professional-development/upcoming-workshops/summer-2020/>
<aapt.org/Conferences/sm2020>

Despite the cancellation of much face-to-face instruction due to the ongoing pandemic, there are still some scheduled live events, and of course there will still be many opportunities for physics teaching and learning professional development online. There are many summer physics teaching professional development opportunities, and research experience for teachers (RET) opportunities, kindly collected at the PhysTEC website clearinghouse. Take care, and have a great summer.