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Big Data and Open Science to Fight COVID-19

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Big Data and Machine Learning are being leveraged in a variety of ways to help fight the COVID-19 pandemic. This ranges from protein folding simulations, to research paper corpus analysis, from allocating hospital resources to providing aid to vulnerable populations. The physics community has extensive experience storing, distributing, and analyzing large complex datasets and coordinating activities across universities, labs, and countries. We as physicists are thus well positioned to contribute to efforts to mitigate the effects of this pandemic. This talk will explore various Open Science projects that physicists are supporting, describe public datasets and resources, and discuss how physics computing expertise is being leveraged to support other researchers.