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Math for rapid identification of SARS-CoV-2 and other disease causing pathogens and mutations using high-resolution melting analysis.

We discuss mathematical methods used to model and analyze high-resolution DNA melting, that are incorporated in a widely used platform for rapid detection and identification of infectious agents including SARS-CoV-2, and in systems used to diagnose a variety of genetic disorders. (Received September 11, 2020)