

Abstract for an Invited Paper
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The Highest Temperature Matter on Earth

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As one raises the temperature of matter, one breaks down larger structures into smaller and smaller components. At temperatures above 3×10^{12} degrees Fahrenheit, molecules, atoms, nuclei, protons give way to a novel form of matter called the quark-gluon plasma. This plasma, with a temperature more than a million times hotter than the center of our sun, is the form of matter that dominated the early universe shortly after the big bang. In this talk, experiments re-creating this plasma will be described and their surprising results discussed.