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Brightest-ever starburst

NEIL GEHRELS SWIFT OBSERVATORY
9 OCTOBER

Gamma-ray bursts (GRBs) emanate from high-energy explosions occurring when massive stars much hotter than our Sun collapse to form black holes or neutron stars. Pictured is GRB 221009A, the brightest GRB ever witnessed, detected on 9 October and lasting a full 10 hours. It was so bright that even the Fermi Gamma Ray Space Telescope – designed specifically for GRBs – couldn't deal with what it was emitting. But as the energy emitted by such an explosion is converted into different kinds of radiation, the X-ray telescope aboard the Neil Gehrels Swift Observatory was able to capture this image from X-rays as they bounced off dust in the Galaxy. GRB 221009A took place about 1.9 billion light-years away, which is close in GRB terms.