

Higgs Boson: The Cosmic Glyph

To mark the 10th anniversary of the discovery of the Higgs boson, the poet Amy Catanzano celebrates the Higgs in verse.

This poem is part of a series of pieces that Physics Magazine is publishing to celebrate the 10th anniversary of the Higgs boson discovery. See also: [Research News: A Particle is Born: Making the Higgs Famous](#); [News Feature: The Era of Higgs Physics](#); [Q&A: The Higgs Boson: A Theory, An Observation, A Tool](#); [Podcast: The Higgs, Ten Years After](#); and [Collection: The History of Observations of the Higgs Boson](#).

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Before 13.8 billion years ago, before everywhere and everywhen, a singularity swells toward nothing but itself, inflamed by heat and energy, then cooling in clusters that give form to the subspace of matter

like poetry gives form to words. Composing codes to everything, the universe authors a quantum field that has magnitude but no direction in the spacetime of everywhere that is now everywhen. Endlessly

invariant, invisible to human eyes, the Higgs field can be perceived but never seen. Spontaneously, like the swerve of imagination in a poet's mind, the field breaks unchanged symmetries in matter,

creating asymmetries so that matter has mass. Words, too, break the symmetries of a blank page to make mass. The stronger the interaction of a particle of poetry with the Higgs field, the more words it has.

Three of four particles with mass in the Higgs field interact with three W and Z particles; the fourth particle with mass becomes a Higgs boson, the legible stroke of a boundless language written in invisible ink.

Preventing the matter it encounters from moving at the speed of light so that matter's mass remains, and with no lines to travel, the Higgs boson is not "the God particle" but a glyph in the cosmic book.