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Object Oriented Design and the Standard Model of particle physics SAMIR LIPOVACA — Inspired by the computer as both tool and metaphor, a new path emerges toward understanding life, physics, and existence. The path leads throughout all of nature, from the interior of cells to inside black holes. This view of science is based on the idea that information is the ultimate "substance" from which all things are made. Exploring this view, we will focus on Object - Oriented (OO) design as one of the most important designs in software development. The OO design views the world as composed of objects with well defined properties. The dynamics is pictured as interactions among objects. Interactions are mediated by messages that objects exchange with each other. This description closely resembles the view of the elementary particles world created by the Standard Model of particle physics. The object model (OM) provides a theoretical foundation upon which the OO design is built. The OM is based on the principles of abstraction, encapsulation, modularity and hierarchy. We will show that the Standard Model of particle physics follows the OM principles.

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