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Michael Shulman* (shulman@san Diego.edu). *Homotopical trinitarianism: a perspective on homotopy type theory.*

As promoted by Harper, “computational trinitarianism” emphasizes the unity of the three faces of type theory: category theory, logic, and computation. That is, type theory is at once a syntax for categories, a foundation for mathematics, and a programming language. This talk will be a high-level overview of *homotopy* type theory from the triune perspective: it is at once a syntax for higher categories, a foundation for higher-categorical / homotopical mathematics, and a homotopical programming language. Individual homotopy type theorists may prefer one perspective or another, depending on their background and interests; but I believe everyone can benefit from a respect and appreciation for all three. Various threads in the past and present of homotopy type theory have been motivated by one or another of the three perspectives, and often seem to pull the theory in different directions; but a trinitarian has faith that beneath this apparent conflict lies a deeper unity waiting to be understood in the future. (Received September 26, 2017)