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The Anomaly flow and the Hull-Strominger system.

The Anomaly flow is a geometric flow which implements the Green-Schwarz anomaly cancellation mechanism originating from superstring theory, while preserving the conformally balanced condition of Hermitian metrics. Its stationary points satisfy the Hull-Strominger system of partial differential equations. The Anomaly flow allows metrics with torsion, and it is quadratic in the Riemann curvature tensor. I will discuss general features of this geometric flow, and describe its behavior on certain examples. This is joint work with D.H. Phong and X.-W. Zhang. (Received September 07, 2017)