A FLOW OF CONFORMALLY BALANCED METRICS

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Abstract. We discuss the development on geometric and analytic aspects of the Anomaly flow. While the flow was originally motivated by the study of Hull-Strominger system from string theory, its zero slope case is potentially of considerable interest in non-Kähler geometry, as it is a flow of $(n-1,n-1)$ form with Kähler stationary points and preserves the conformally balanced property of the initial metric. We establish its long time existences and convergence on Kähler manifolds for suitable initial data by reducing it to a parabolic complex Monge-Ampère type equation which has no concave property. This is joint work with D. Phong and S. Picard.

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