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Invariant Discrete Curve Flows

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Several invariant geometric curve flows are known to induce integrable evolution equations on the differential invariants of the curve. The same phenomenon occurs for invariant discrete curve flows. In this talk we will explain how it is possible, using the method of equivariant moving frames and the recurrence relations for the discrete shift operators and the exterior derivative, to obtain the induced evolution equations on the discrete invariants symbolically. That is, the evolution equations can be found without relying on the coordinate expressions of the moving frame and the discrete invariants.

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