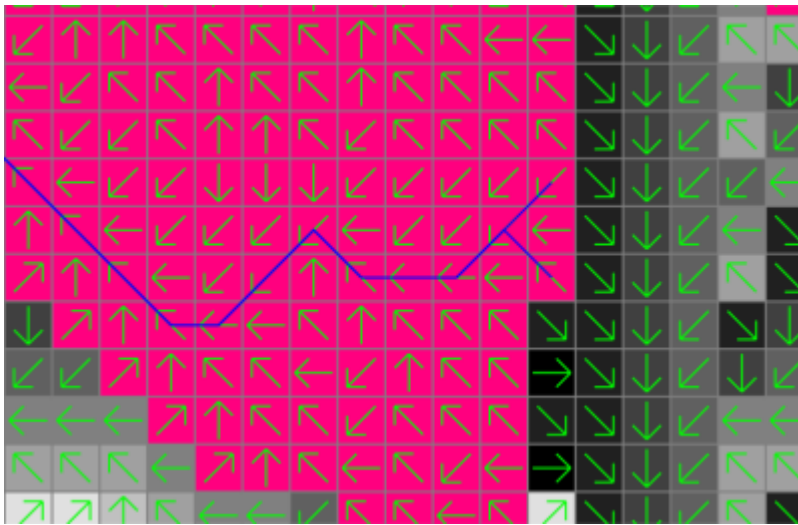


Efficient longest flow path algorithm

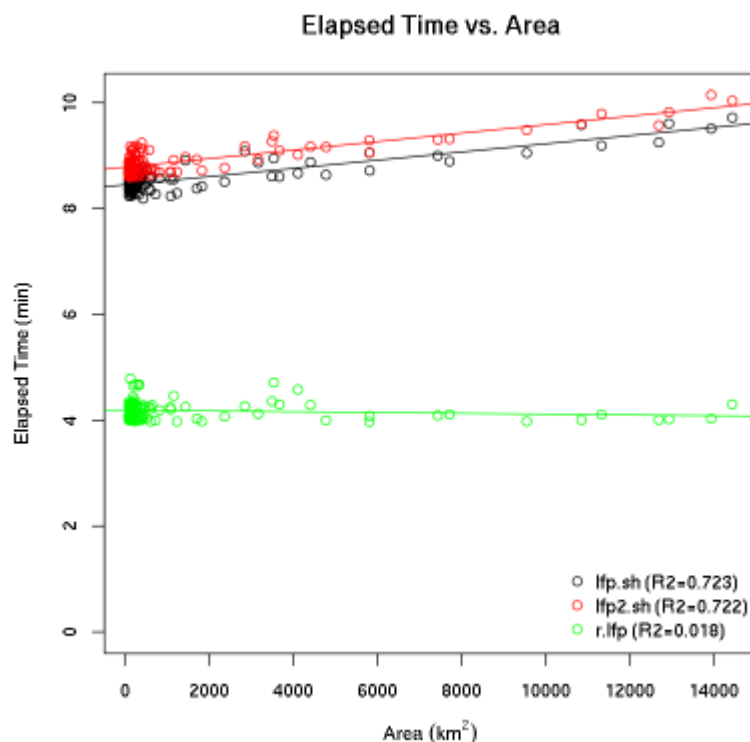


$\backslash$ \def\LFP{\overrightarrow{\text{LFP}}} \def\FP{\overrightarrow{\text{FP}}} \def\FL{\text{FL}} \def\DFL{\text{DFL}} \def\UFL{\text{UFL}} \def\LFL{\text{LFL}} \}

A flow path FP_i is a watercourse between a pair of two points i within a watershed and the longest flow path LFP is defined as

$\backslash$ \LFP in \left\{ \text{FP}_i; \middle\text{vert}; \left\{ \text{FP}_j \right\} \right\} \text{geq} \left\{ \text{FP}_j \right\} \text{for all } j \neq i \right\}.

The longest flow path plays an important role in hydrologic modeling, but its computation requires multi-step raster calculations for each watershed. This research project aims to improve the current process and efficiency of computing the longest flow path for a lot of watersheds.



Method	lfp.sh	lfp2.sh	r.lfp	Coming soon
Elapsed time	3h 48m	9h 8m	6h 46m	56s

[Project workspace](#)

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