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 FREIE UNIVERSITÄT BERLIN
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 Bachelor Thesis
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 Lexicographic Frchet Matchings with Degenerate Inputs
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 tabularrr Supervisor: Prof. Dr. Gnter Rote
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 Berlin,

abstract The classical Frchet distance is the minimal connecting distance needed to monotonically traverse two paths completely. Lexicographic Frchet matchings utilise the steepest descent and apply the Frchet distance recursively (i.e. divide and conquer) to minimise the time spent at a distance greater than a threshold. We take a deep dive into degenerate inputs where different matchings appear equal when viewed at a distance. The problem of choosing one of the multiple paths through critical events at the same distance is investigated. Multiple critical events are compared using derivatives and second derivatives.