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Heavy semileptonics with a fully relativistic mixed action

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The first phase of a heavy quark program based on twisted mass valence quarks has been presented at last year's lattice conference. The CLS $N_f=2+1$ ensembles were used for their fine lattice spacing, while twisting the masses is expected to reduce discretisation errors even further and allow for a fully relativistic calculation. In this poster, we present our first preliminary results on three point functions, corresponding to $D \to K$ and $D \to \pi$ semileptonic decays. We discuss our discretisation errors and the perspectives for the determination of $|V_{cs}|$ and $|V_{cd}|$, as well as for future uses of this framework for other semileptonic decays.

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