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## Bs -> mu+mu- gamma & Bs -> phi gamma decay rates from Nf=2+1+1 twisted mass simulations

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We present our recent estimate of the  $B_s \to \mu^+\mu^-\gamma$  decay rate at large  $q^2$ , computed on four lattice spacing of  $N_f=2+1+1$  twisted mass simulations. The relevant form factors are extrapolated to physical  $B_s$  meson mass from simulations carried out up to  $2M_{D_s}$ , covering the region of  $\sqrt{q^2}>4.16\,\mathrm{GeV}$ , and adopting a novel strategy to circumvent the problem of analytic continuation of electroweak amplitude. We will also present preliminary results of the  $B_s \to \phi \gamma$  decay rate.

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