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Measurement of the CKM matrix elements $|V_{ub}|/|V_{cb}|$ from semileptonic B_s-meson decays at LHCb[1] SVENDE BRAUN, University of Maryland, College Park, LHCB COLLABORATION — The Cabibbo-Kobayashi-Maskawa matrix elements $|V_{ub}|$ and $|V_{cb}|$ describe the coupling between beauty to up and beauty to charm quarks in the electroweak interaction, respectively. They can be measured using semileptonic B-decays which are either fully reconstructed or in an inclusive way. A discrepancy exceeding 3 standard deviations is observed which is a long-standing puzzle of flavor physics. I will discuss a new measurement made by LHCb using the decay $B_s^0 \to K^- \mu^+ \nu_\mu$, which is observed for the first time and can be used together with its normalization channel $B_s^0 \to D_s^- \mu^+ \nu_\mu$ to extract $|V_{ub}|/|V_{cb}|$ in different regions of the momentum transfer q^2 using theoretical form factor predictions.

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