## THEORETICAL UPDATE OF THE SEMILEPTONIC BRANCHING RATIO OF B MESONS

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We reconsider the prediction of the semileptonic branching ratio of B mesons using our recent calculation of the radiative corrections with account for finite quark masses in non-leptonic decays and taking into account $1/m_b^2$ corrections. For the semileptonic branching ratio we obtain $B_{SL} = (11.8 \pm 1.6)\%$ using pole quark masses and $B_{SL} = (11.0 \pm 1.9)\%$ using running $\overline{\rm MS}$ quark masses. The uncertainty is dominated by unknown higher order perturbative corrections. We conclude that the present accuracy of the theoretical analysis does not allow to state a significant disagreement with the experimental results. However, our re-analysis of the decay $b \to ccs$ yields an increase of $(35 \pm 11)\%$ due to next-to-leading order corrections including mass dependent terms, which further emphasizes the problem of the average charm content of the final states in B decays.

### REFERENCE

*Bagan E., Ball P., Braun V.M., Gosdzinsky P.* //Phys.Lett., 1995. **B342**. 362.

## IOFFE-TIME DISTRIBUTIONS INSTEAD OF PARTON MOMENTUM DISTRIBUTIONS IN DESCRIPTION OF DEEP INELASTIC SCATTERING

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We argue that parton distributions in coordinate space provide a more natural object for nonperturbative methods compared to the usual momentum distributions in which the physics of different longitudinal distances is being mixed. To illustrate the advantages of the coordinate space formulation, we calculate the coordinate space distributions for valence quarks in the proton using the QCD sum rule approach. A remarkable agreement is found between the calculated and the experimentally measured u-quark distribution up to light-cone distances $\Delta^- = \Delta^0 - \Delta^3$ of order $\sim 2$ fm in the proton rest frame. The calculation for valence d quarks gives much worse results; the reasons for this discrepancy are discussed.

### REFERENCE

*Braun V.M., Gornicki P., Mankiewicz L.* //Phys.Rev., 1995. **D51**. 6036.