Open-b production in two-photon collisions in DELPHI

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Heavy b and c quark production in $\gamma\gamma$ collisions has been measured through semileptonic decays with the DELPHI detector at LEPII.

The measured cross-sections $\sigma(e^+e^- \rightarrow e^+e^- b\bar{b}X) = 14.9 \pm 3.3$ (stat) pb$\pm$ 3.4 (syst) pb and $\sigma(e^+e^- \rightarrow e^+e^- c\bar{c}X) = 937 \pm 191$ (stat) $\pm$ 206 (syst) pb are compared to NLO perturbative QCD calculations.

The cross-section for b production is found to exceed QCD predictions by a factor of about 3. The Kaon-lepton double tagging, used for the first time in $\gamma\gamma$ physics, confirms this excess.

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