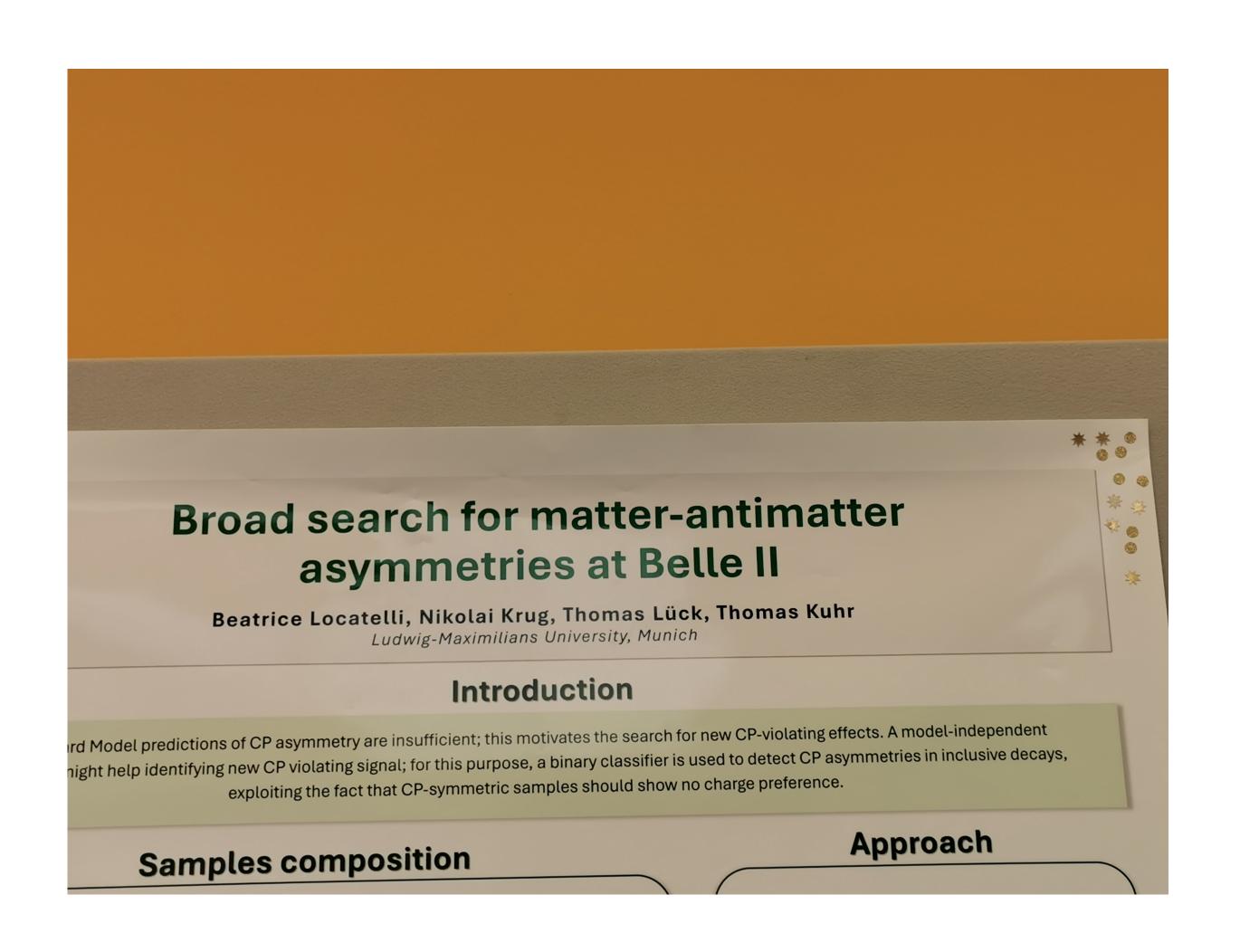
Poster Winners

Poster Winners (4th Place)



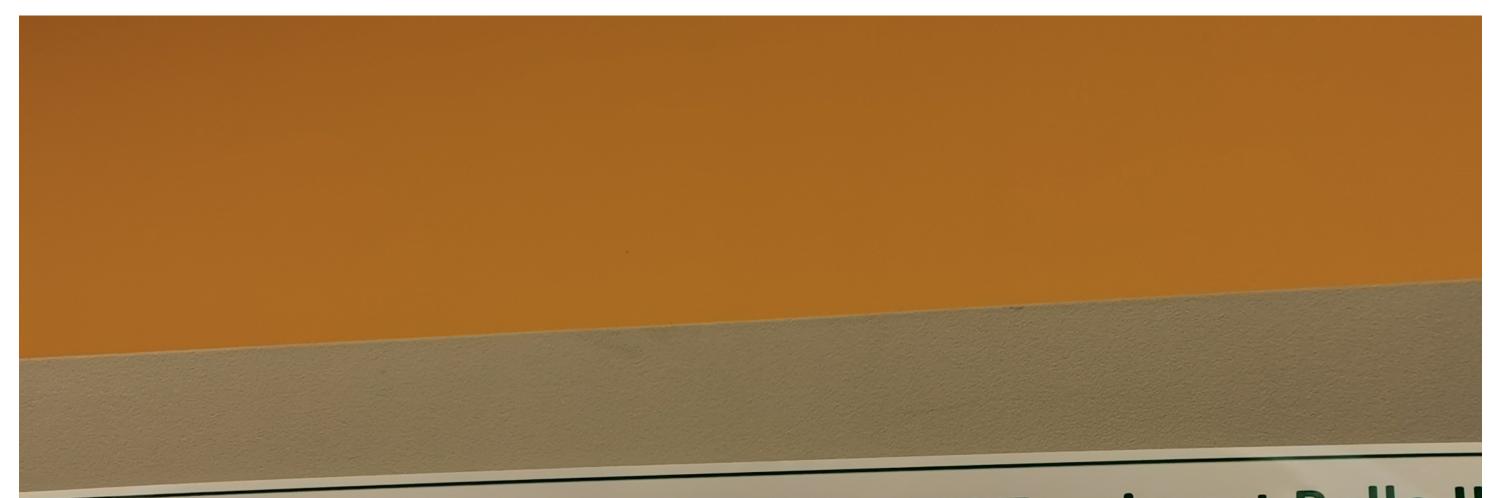
Stella

Poster Winners (3rd Place)



Beatrice

Poster Winners (2nd Place)



$B \to D^{**} \ell \nu$ Analysis with Hadronic FEI Tagging at Belle II

Eylül Ünlü, Thomas Lück, Thomas Kuhr Ludwig-Maximilians-Universität Munich

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Why study the $B \to D^{**} \ell \nu$ decays?

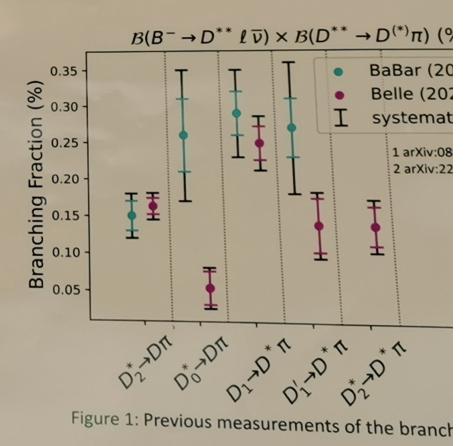
> Because there is so much we do not yet understand. For instance:

1/2 vs 3/2 puzzle: theory predicts dominance of the decay into the narrow $(j_q = 3/2)$ states, but experiments to this day have found larger than expected contributions from the broad states ($j_q = 1/2$)

Branching fraction discrepancies: Belle and BaBar report discrepant results

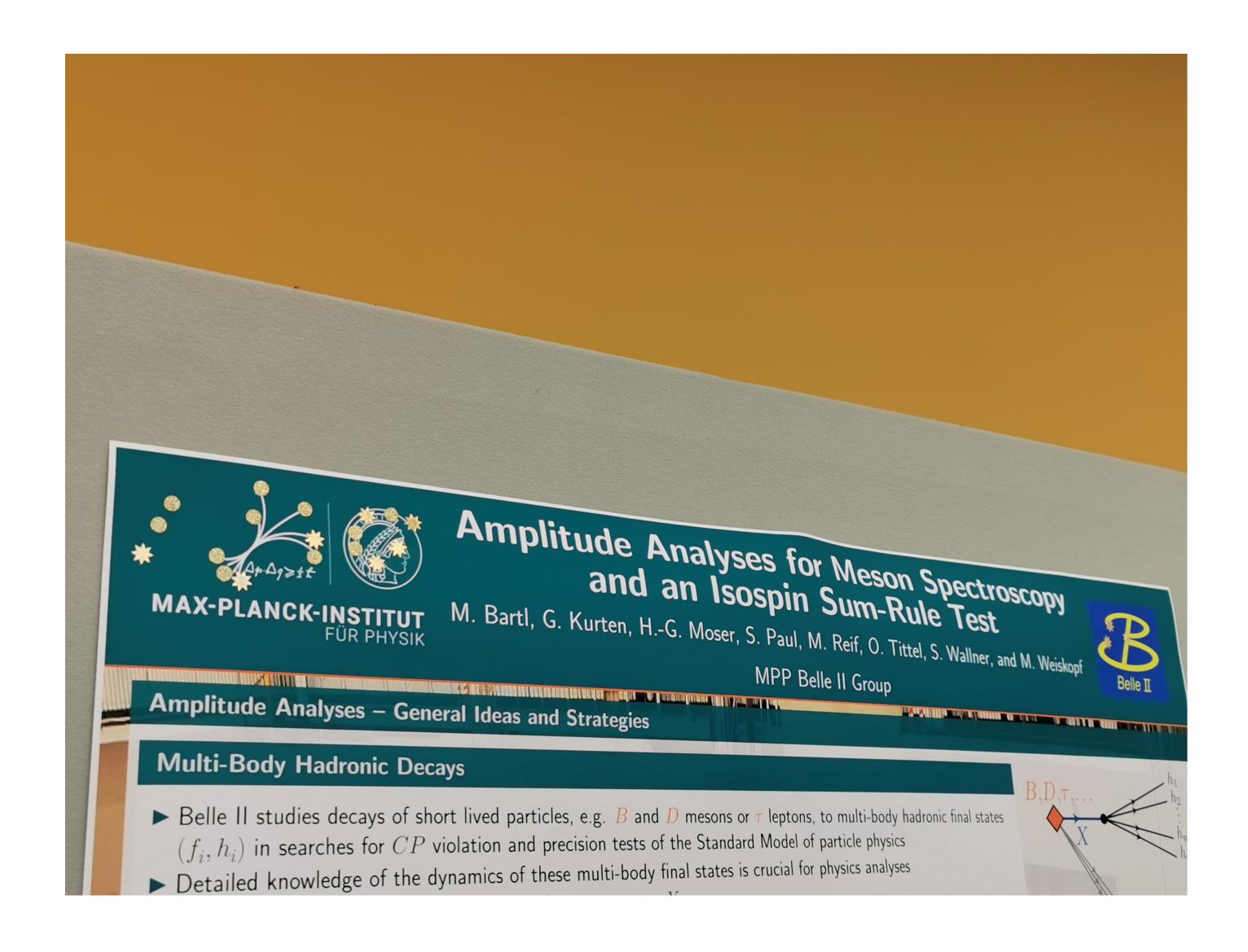
for the decays into the wide D_0^* state

Impact on other analyses: uncertain $B \to D^{**}\ell\nu$ backgrounds limit the precision of $R(D^*) = B \rightarrow D^* \tau \nu / B \rightarrow D^* \ell \nu$ measurements, which are interesting as a lepton-universality test that currently shows some dicrepancy from the Standard Model (Figure 2)



Eylul

Poster Winners (1st Place)



Miriam