

FAKULTÄT für PHYSIK  
LUDWIG-MAXIMILIANS-UNIVERSITÄT  
MÜNCHEN/GARCHING

PHYSIK-DEPARTMENT  
TECHNISCHE UNIVERSITÄT MÜNCHEN  
MÜNCHEN/GARCHING

## MLL-KOLLOQUIUM

Donnerstag, 04.07.2019, 16<sup>15</sup> Uhr

Hörsaal der LMU in Garching, Am Coulombwall 1  
Treffen zum gemeinsamen Kaffee 16 Uhr

Prof. Harald Fritzsch  
(LMU München)

### Flavor Mixing of Quarks and Neutrinos

The mass matrices of the quarks and leptons have three 'texture zeros', as expected, e.g., in Grand Unified Theories. The flavor mixing angles are functions of the fermion masses. For the quarks the results are in good agreement with the experimental results. The small neutrino masses are due to the 'see-saw'-mechanism. We calculate the values of the three Majorana neutrino masses: 1.4 meV - 9 meV - 51 meV. The effective neutrino mass, relevant for the neutrinoless double beta decay, is about 25 times smaller than the present limit from the experiments.

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