In this talk, we consider the problem of computing compact routing tables for general and planar graphs in the HYBRID communication model.
For general graphs, we present a scheme with logarithmic stretch.
For planar graphs, the stretch improves to O(1).
Both of our algorithms use polylogarithmic local and global communication, run in polylogarithmic time, and create routing labels of polylogarithmic size.
Thus, our algorithms are almost optimal in all relevant parameters.

Our main technical contribution are new distributed padded decomposition schemes for general, seperable, and planar graphs, which may be of independent interest.
To archieve these results, we combine state-of-the-art distributed approximation algorithms [ICML '21, STOC '22] with state-of-the-art padded decomposition schemes for sequential models [STOC '15, APPROX '20].
Our approach archieves "the best of both worlds" with regard to runtime and quality of the decomposition.
To the best of our knowledge, this is the first distributed algorithm to create a padded decomposition for planar graphs in time o(n^c).