1139-55-49   **Luis Montejano*** (`luismontej@gmail.com`), Rancho Largo 211, 76230 Queretaro, Mexico, and **Frédéric Meunier**. *Variations of the Nerve Theorem.*

The Nerve theorem is a fundamental result in topological combinatorics. It has many applications, not only in combinatorics, but in category and homotopy theory and also in applied and computational topology. Roughly speaking, it relates the topological "complexity" of a simplicial complex to the topological "complexity" of the intersection complex of a "nice" cover of it. Stating the Nerve theorem with conditions on intersection seems to be somehow dictated by its very nature. It might thus come as a surprise that a Nerve theorem for unions also holds.

In this talk, we shall present the a theorem which interpolates between a version of the Nerve theorem with intersections and a version with unions. The case k=d is a classical version of the Nerve theorem. The case k=-1 is the same theorem, but with unions in place of intersection. (Received January 23, 2018)

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