# MODIFIED GRAVITY THEORIES.
# METRIC-AFFINE FRAMEWORK AND INSTABILITIES

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The goal of this seminar is to motivate and present the vast landscape of theories of modified gravity, i.e., those beyond General Relativity. We will later focus on a particular framework to do modified gravity called 'metric-affine', in which a metric and a general connection are assumed as the basic fields of the theory. In addition to all this, modifying General Relativity is not an easy task, as one usually encounters pathologies and extra unstable degrees of freedom. Sometimes they affect just a particular background, but they can also be intrinsic problems of the theory. It is then important to be aware of these problems and, for this reason, we will briefly treat them in this talk as well.