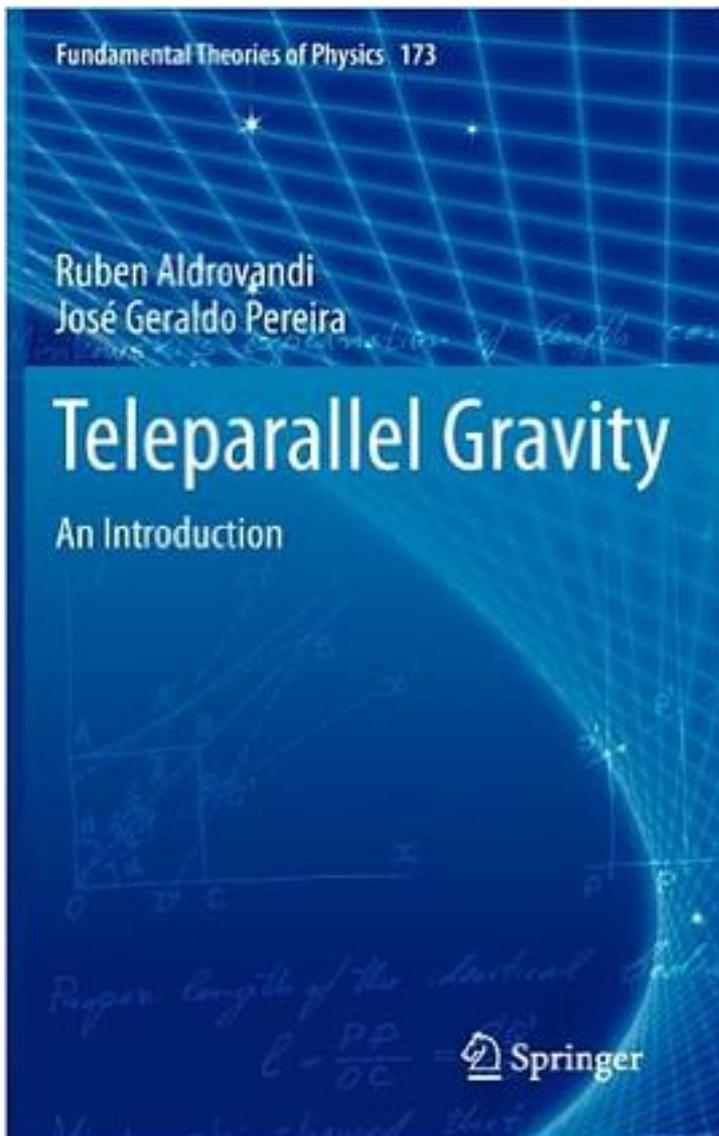


Teleparallel Gravity



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著者:Ruben Aldrovandi

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Teleparallel Gravity (TG) is an alternative theory for gravitation, which is equivalent to General Relativity (GR). However, it is conceptually different. For example in GR geometry replaces the concept of force, and the trajectories are determined by geodesics. TG attributes gravitation to torsion, which accounts for gravitation by acting as a force.

TG has already solved some old problems of gravitation (like the energy-momentum density of the gravitational field). The interest in TG has grown in the last few years.

The book here proposed will be the first one dedicated exclusively to TG, and will include the foundations of the theory, as well as applications to specific problems to illustrate how the theory works.

作者介绍:

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标签

物理

走马观花

规范理论

引力

评论

超距平行引力是把能动张量作为源，通过类似杨-米的构造，得到的规范引力理论；引力由 Weitzenböck 联络及其挠率描述，而该联络的曲率为零。本书认为，超距平行引力可以写下等价于爱-希的作用量，与质点跟张量物质的耦合也与广义相对论的相同，在这个意义上等价于广义相对论。不同的是，超距平行引力还能区分惯性跟引力的效果，可以研究强、爱氏

乃至弱等效原理的破壞，還可以定義協變的引力能動張量。超距平行引力跟典型楊-米理論及廣義相對論的各種異同，在本書中被多次強調。一個遺憾是，本書中的幾何量幾乎全部由分量寫出。這樣或許在計算層面上非常清楚（我沒有算），但是在數學層面上較難理解。

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书评

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