This article is about various topics related to cosmology and to the physics of galaxies, stars and planets and was inspired by several inputs. The first section is about primordial cosmology and describes the TGD counterpart of inflation.

The second section about three important aspects of TGD inspired cosmology. The findings of JWST force us to ask which came first: supermassive blackholes of galaxies. The recently discovered weak lensing effects lend support for the very long cosmic strings, which represent a key notion in TGD inspired cosmology. Besides dark matter there is also the problem of missing baryonic matter: for some reason 30 per cent of baryons are missing.

The third section is about the recent TGD view of the physics of stars and planets. The stimulus came from the discovery of a planet that should not exist: the planet has the mass scale of Neptune but the mass of the star is 1/9:th of the solar mass. TGD based model for the formation of galaxies, stars and planets is based on the notion of cosmic strings which produce monopole flux tubes provides and explanation for the finding and leads to considerably more detailed model for the evolution of stars making a rather dramatic prediction: the element abundances should depend only weakly on cosmic time: the first support for this prediction came already 20 years ago and JWST has provides additional support for it.

In the last section a model for planets and stars as gravitational oscillators inspired by the TGD variant of the Nottale's proposal is discussed. It turns out that the radius of the core of Earth corresponds to the Bohr radius for the first orbital, which suggests that the core of Earth, and more generally of the inner planets and Mars corresponds to an S-wave ground state. For the Sun the $n = 1$ S-wave orbital is 1.5 times the solar radius. The model applies also to the outer planets. Also the rings of giant planets can be understood at a rough quantitative level.