Master Thesis

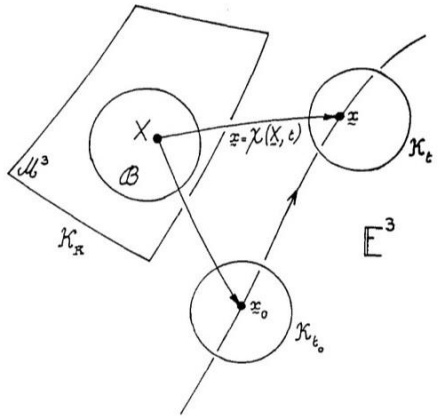
The matter tells spacetime to curve; how spacetime tells matter to move?

Project Start: 03.08.2020

In this project, we study ***Einstein's field equation in the general relativity*** to understand the role of ***spacetime*** and ***matter*** in problem solving. To this end, firstly we need to consider Einsteinian relativistic framework to distinguish the matter from corresponding space. Secondly, we review the concept of ***energy density*** to focus on ***mass-energy equivalence***.

$$G_{\alpha\beta} = \frac{8\pi G}{c^4} T_{\alpha\beta}$$

Einstein's Equation



Relativistic Framework

- knowledge of ***continuum mechanics*** is essential.
- Writing the thesis in ***English*** will bring considerable benefits to the student.
- This project will be conducted by fracture group of Prof. Paul Steinmann.
- S.Elmira Birang.O will provide you further information, elmira.birang@fau.de