

Seminář z diferenciální geometrie pokračuje 7.6.2021 od 10:00 online na platformě MS Teams a v zasedací místnosti ÚMS (druhé patro).

Připojení ke schůzce [ZDE](#).

**Radek Suchánek (Masaryk University):**

Some remarks on variational nature of Monge-Ampère equations in dimension four

Abstrakt:

I will present a necessary condition for the local solvability of the strong inverse variational problem in the context of Monge-Ampère partial differential equations and first-order Lagrangians. In contrast with the previous talk by Marcus Dajinger, this condition is given by comparing differential forms on the first jet bundle and is valid only for the aforementioned PDEs. To illustrate how this approach can be applied, we will examine the linear Klein-Gordon equation, first and second heavenly equations of Plebanski, Grant equation, and Husain equation.

I will also speak about the drawbacks of the method when trying to generalize it to a system of equations.