The magnetohydrodynamical (MHD) system in critical space: existence and uniqueness in dimension $n \ge 3$

Sylvie Monniaux (Aix-Marseille Université, France)

In this talk, we describe the MHD system in dimension higher than 3 and prove existence and uniqueness results of « mild » solutions in the critical space $L_t^q(L_x^p)$ with n/p + 2/q = 1. The proof involves the maximal regularity property for the Hodge-Laplacian.