ID de Contribution: **13**   Type: **Contributed talk**

Computer-assisted proofs for a corrosion model related to the storage of nuclear waste

mardi 16 novembre 2021 14:45 (30 minutes)

I will present some techniques that can be used to "turn a numerical simulation into a theorem". More precisely, the goal is to use a fixed point argument in the neighborhood of an approximate solution which has been obtained numerically, in order to prove the existence of a true solution nearby, and to also get guaranteed and fully computable a posteriori error estimates between this true solution and the numerical approximation. As an example, I will discuss some recent results about traveling waves in the so-called DPCM model, obtained in collaboration with C. Chainais-Hillairet and A. Zurek.

Orateur: BREDEN, Maxime (Ecole Polytechnique, CMAP)