

## **SYMBOLIC EXTENSIONS FOR 3-DIMENSIONAL DIFFEOMORPHISMS**

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**Time: Thu, Dec 10, 10:00-11:00**

**Tencent room: 155 878 574**

**Abstract:** The coding of dynamical system is a way to simulate chaotic behavior by symbolic dynamics. We prove that every  $C^r$  diffeomorphism with  $r > 1$  on a three-dimensional manifold admits symbolic extensions, i.e. topological extensions which are subshifts over a finite alphabet. This answers positively a conjecture of Downarowicz and Newhouse in dimension three. This is a joint work with David Burguet.