

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

**Speaker: Professor Gang Liao**  
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**Time: Thursday, December 10, 2020, 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.