



Department of Mathematics  
The Chinese University of Hong Kong

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數學系  
香港中文大學

Phone: (852) 3943 7988-9 • Fax: (852) 2603 5154 • Email: dept@math.cuhk.edu.hk  
Rm. 220, Lady Shaw Building, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong

# Representation and Number Theory Seminar

## *The center of the small quantum group: dimension, gradings and symmetries*

by

*Professor Anna Lachowska*  
*École Polytechnique Fédérale de Lausanne (EPFL)*

### Abstract

We will consider the recent developments in the study of the structure of the center (and higher Hochschild cohomologies) of the small quantum group associated to a simple Lie algebra  $g$  and a root of unity  $q$ . The results relating this structure with the geometry of the group  $G$  lead to a lower bound for the dimension of the center, which conjecturally provides an equality in type  $A_n$ .

Date : 18 April 2023 (Tuesday)  
Time : 4:00pm – 5:30pm  
ZOOM :  
<https://cuhk.zoom.us/j/98406698458?pwd=ejBFQXBtdDU2bTNFZnZhaUlnMHJUdz09>  
Meeting ID : 984 0669 8458  
Passcode : sesame

*All are Welcome*