

**From:** [Quoc P. Ho](#)  
**To:** [Wei Ping LI](#); [Yongchang ZHU](#); [Min YAN](#); [Beifang CHEN](#); [Huai-Liang CHANG](#); [Eric MARBERG](#); [Ivan Ip](#); [Guowu MENG](#); [Maosheng XIONG](#)  
**Cc:** [Noreen L S LEE](#); [Priscilla L S WONG](#)  
**Subject:** Algebra and Geometry Seminar  
**Date:** Tuesday, May 9, 2023 10:56:42 AM

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Dear all,

This week, **Sasha Minets** from **The University of Edinburgh** will give a talk at our **Algebra and Geometry Seminar**. Details are below (but as usual, they can also be found [here](#)). It'll be an **in-person** talk in 5564. Please note the unusual time: **11 am**, Wednesday, May 10.

Best,  
Quoc

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**Space-time coordinates:** 11am (HKT), Wednesday, May 10, 2023. Room: 5564.

**Title:** A proof of  conjecture

**Abstract:** Let  be a smooth projective curve. The non-abelian Hodge theory of Simpson is a diffeomorphism between the character variety  of  and the moduli of (semi)stable Higgs bundles  on . Since this diffeomorphism is not algebraic, it induces an isomorphism of cohomology rings, but does not preserve finer information, such as the weight filtration. Based on computations in small rank, de Cataldo-Hausel-Migliorini conjectured that the weight filtration on  gets sent to the perverse filtration on , associated to the Hitchin map. In this talk, I will explain a recent proof of this conjecture, which crucially uses the action of Hecke correspondences on . Based on joint work with T. Hausel, A. Mellit, O. Schiffmann.