

## Before:

PhD Student  
Max Planck Inst., Bonn

## Currently:

MSRI Postdoc  
GRTA Program

## After:

Postdoc  
University of Freiburg

## Before:

PhD Student  
Max Planck Inst., Bonn

## Currently:

MSRI Postdoc  
GRTA Program

## After:

Postdoc  
University of Freiburg

Area of research: **Geometric Representation Theory.**

## Before:

PhD Student  
Max Planck Inst., Bonn

## Currently:

MSRI Postdoc  
GRTA Program

## After:

Postdoc  
University of Freiburg

Area of research: **Geometric Representation Theory**. In particular, understanding aspects of **Hodge Theory** in Representation theory.

## Before:

PhD Student  
Max Planck Inst., Bonn

## Currently:

MSRI Postdoc  
GRTA Program

## After:

Postdoc  
University of Freiburg

Area of research: **Geometric Representation Theory**. In particular, understanding aspects of **Hodge Theory** in Representation theory.

## Theorem (Elias-Williamson theorem ('12))

*There is a “Hodge theory” for Soergel bimodules*

Before:

PhD Student  
Max Planck Inst., Bonn

Currently:

MSRI Postdoc  
GRTA Program

After:

Postdoc  
University of Freiburg

Area of research: **Geometric Representation Theory**. In particular, understanding aspects of **Hodge Theory** in Representation theory.

**Theorem (Elias-Williamson theorem ('12))**

*There is a “Hodge theory” for Soergel bimodules*

My PhD thesis:



Generalization of EW thm  
to singular Soergel bimod.

What happens in char  $p > 0$   
**Thm:** Hard Lefschet hold for  $X$   
flag variety if  $\dim X > p$

...

Something I am working on (or that I would like to):

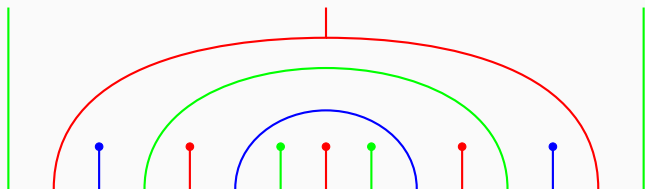
- What about Hodge theory in other settings in Representation theory? (e.g. KLR algebras? Cherednik algebras?)

Something I am working on (or that I would like to):

- What about Hodge theory in other settings in Representation theory? (e.g. KLR algebras? Cherednik algebras?)
  
- Understand better Soergel bimodules. Can we find “nice” bases of the indecomposable bimodules?

Something I am working on (or that I would like to):

- What about Hodge theory in other settings in Representation theory? (e.g. KLR algebras? Cherednik algebras?)
- Understand better Soergel bimodules. Can we find “nice” bases of the indecomposable bimodules?



(basis element of an indecomposable Soergel bimodule in type  $\tilde{A}_2$ )