

# Anne Fayolle

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CONTACT INFORMATION	Department of Mathematics University of Utah , LCB 317.				fayolle@math.utah.edu
RESEARCH INTERESTS	Algebraic geometry and commutative algebra.				
EDUCATION	<b>University of Utah</b> PhD in mathematics ( 2022 - Present)  <b>École Polytechnique Fédérale de Lausanne (EPFL)</b> MSc. Mathematics, July 2022  <b>McGill University</b> BSc. First class honours in mathematics, minor in computer science, May 2020  <b>Université de Montréal</b> Certificate Philosophy, with mention of excellence, May 2020				
SCHOLARSHIPS AND GRANTS	2023	Graduate Student Travel award,			
	2023	NSERC PGS-D (held),			
	2023	NSERC CGS-D (offered),			
	2022	EDGES fellowship University of Utah,			
	2019	FRQNT supplement to the NSERC award,			
	2019	NSERC USRA, McGill University,			
	2017	Alma Mater entrance scholarship, McGill University			
PAPERS	J. Carvajal-Rojas, Anne Fayolle, <i>On tame ramification and centers of <math>F</math>-purity</i> . Journal of the London Mathematical Society. DOI: jlms.12993				
PREPRINTS	Anne Fayolle, Centers of perfectoid purity. ArXiv e-prints, 2024				
TEACHING	Winter 2025	MATH 1030	<i>Quantitative reasoning</i>	Utah	
	Winter 2024	MATH 1220	<i>Calculus II</i>	Utah	
	Winter 2023	MATH 1320	<i>Calculus II for engineers</i> (TA)	Utah	
SERVICE	2024-2025	AWM mentor			
	2024	BRIDGES co-organizer (AWM conference aimed towards early graduate students and advanced undergraduates)			
	2023-2024	Student commutative algebra seminar organizer			
	2023-2024	Graduate Student Advisory Committee EDI representative			
	2021-2022	Polyquity committee member			
		Polyquity is the association that promotes gender equality on the EPFL campus			
	2020-2022	EPFL mentor			
		Mentoring a group of first year students to help them navigate the EPFL and math life.			
	2019-2020	Vice-President SUMM			
		SUMM is the largest undergraduate math conference in Canada with over a hundred participants annually.			

## TALKS

*Centers of perfectoid purity*, CIMAT Algebra seminar, Fall 2024  
*Centers of perfectoid purity*, Congreso nacional de la sociedad matemática mexicana, Fall 2024  
*Mixed characteristic compatible ideals*, Upcoming Researchers in Commutative Algebra, University of Nebraska Lincoln, Summer 2024  
*Tame ramification and centers of  $F$ -purity*, CIMAT Commutative Algebra Learning Seminar, CIMAT, Spring 2024  
*Tame ramification and centers of  $F$ -purity*, Commutative Algebra Seminar, University of Utah, Fall 2023  
*On tame ramification and compatible ideals*, BIKES, the Graduate Student Seminar at the University of Utah, Fall 2023  
*Compatible ideals and their behavior under finite covers*, Commutative Algebra Reading Seminar, University of Nebraska, Fall 2023  
*An introduction to compatible ideals*, Commutative Algebra Graduate Student Seminar at U Michigan, Spring 2023  
*An introduction to compatible ideals*, BIKES, the Graduate Student Seminar at the University of Utah, Spring 2023  
*Algorithms on lattices*, Undergraduate research seminar, McGill. (August 2019)  
*Representations of  $\mathrm{SL}_2(\mathbb{R})$* , Undergraduate reading seminar on automorphic forms, McGill. (July 2019)

## POSTERS

*Tame ramification and centers of  $F$ -purity*, Western Algebraic Geometry Symposium, Washington University in St. Louis, Fall 2023.