

What's new  
in Computational  
Real  
Algebraic Geometry?

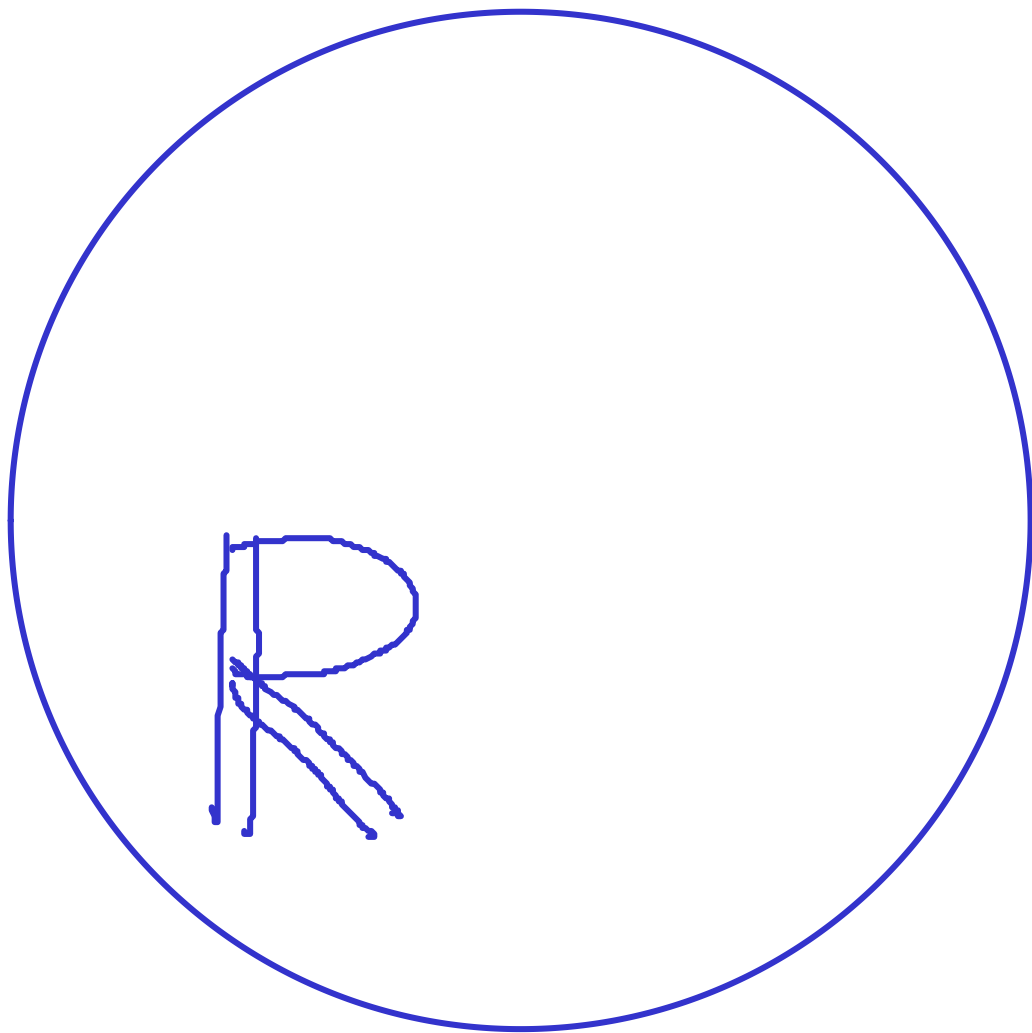
An Introduction to the  
MS "Computational Real Algebraic Geometry"

Cordian Riener  
Josué Tonelli-Cueto

SIAM AAG 21

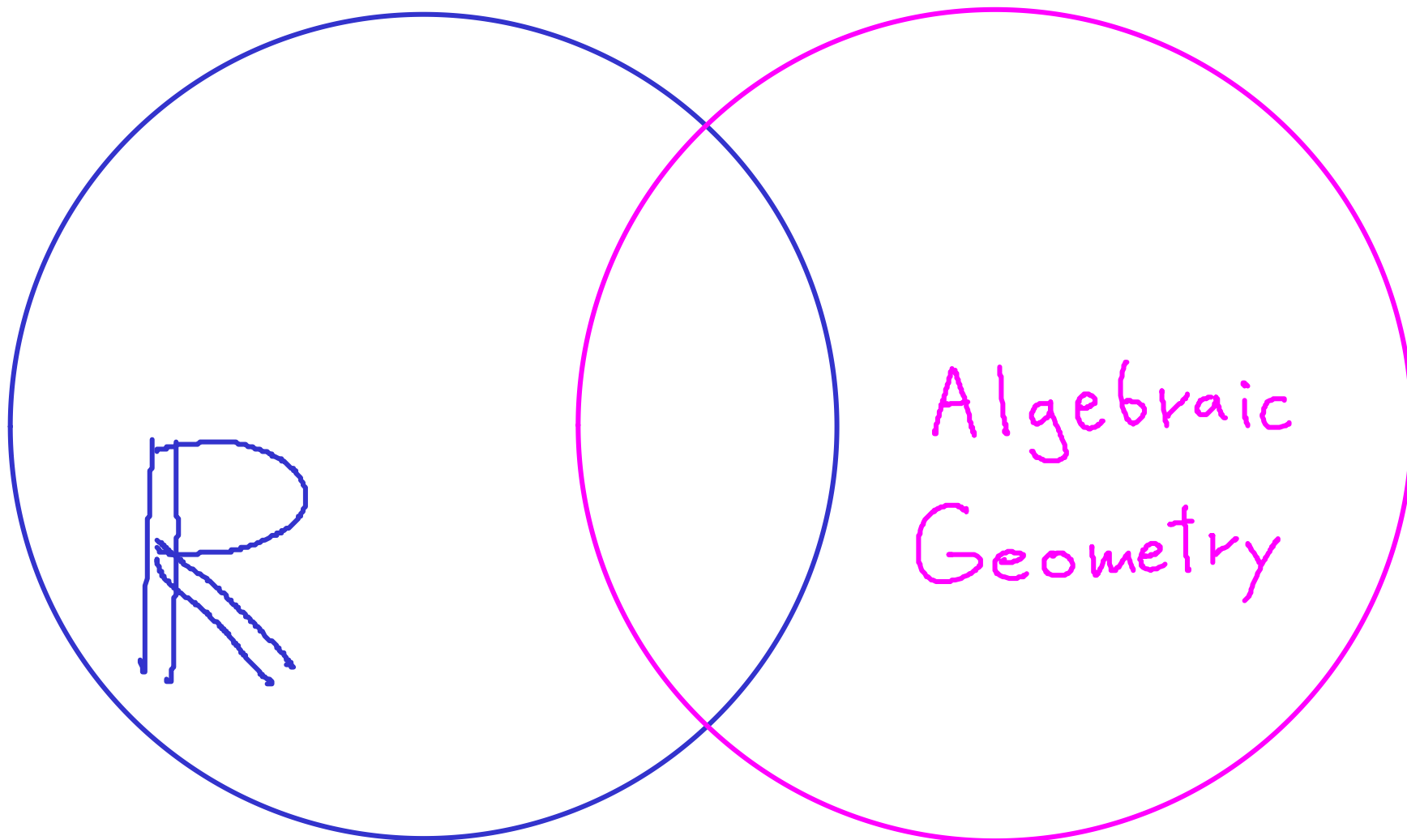
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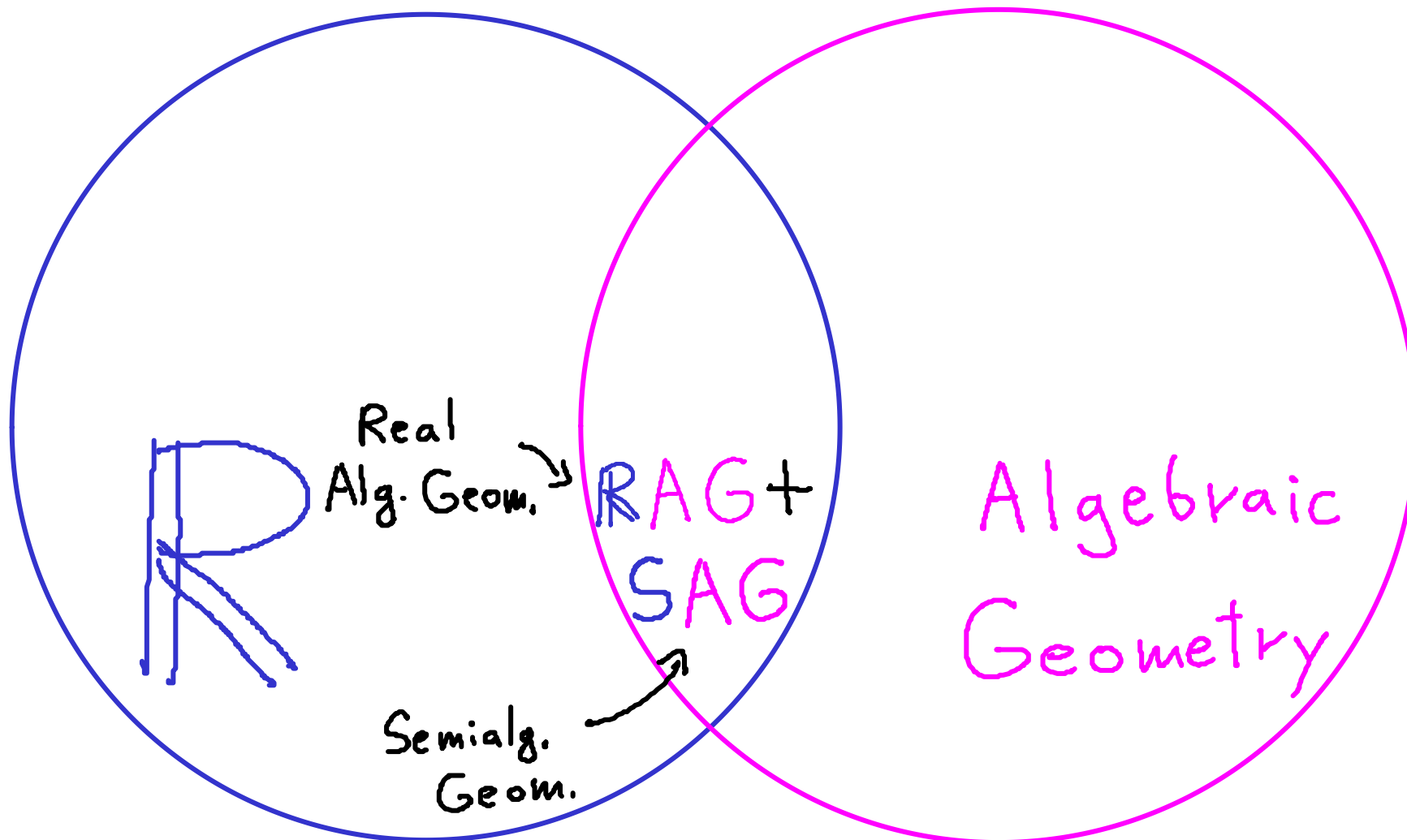
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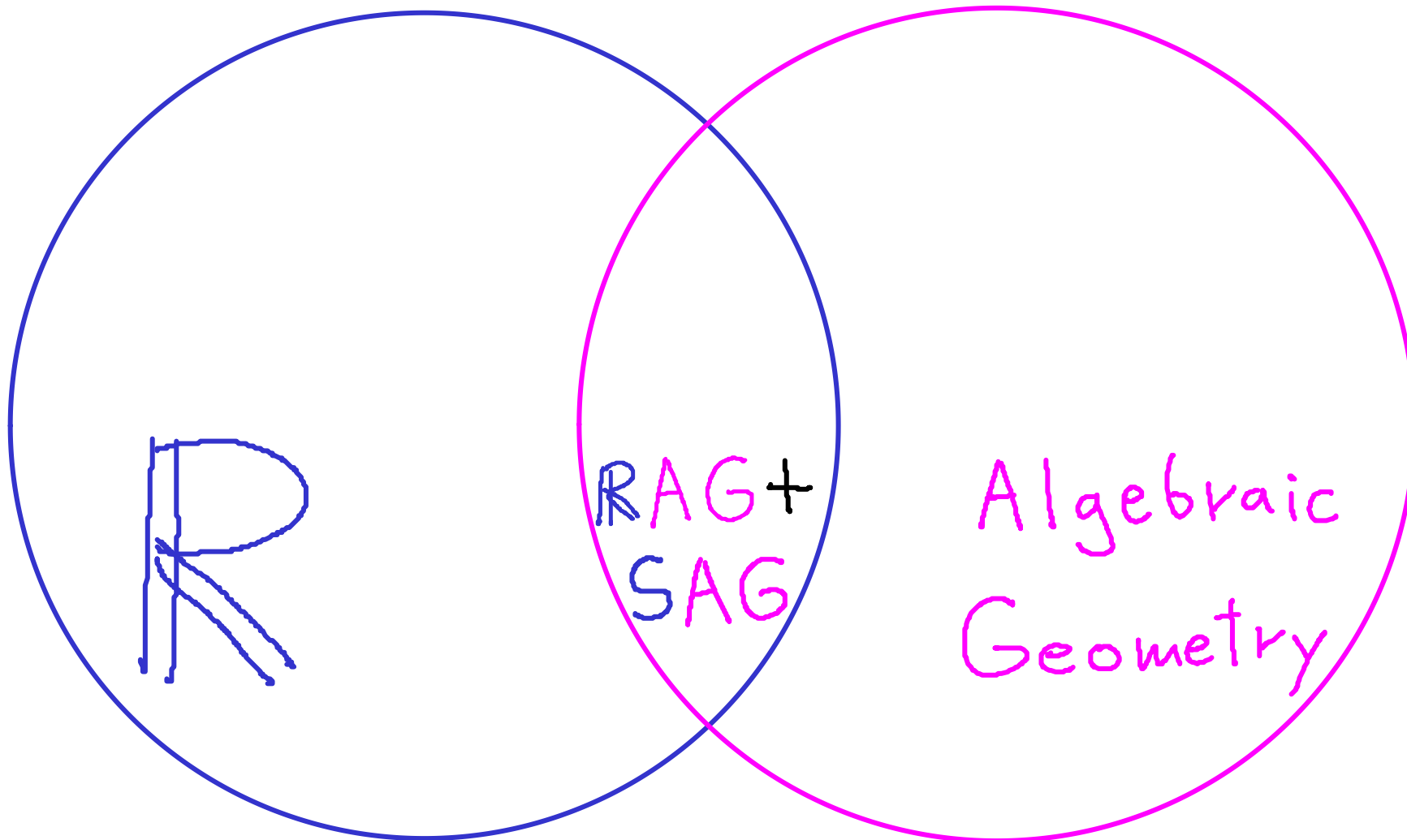
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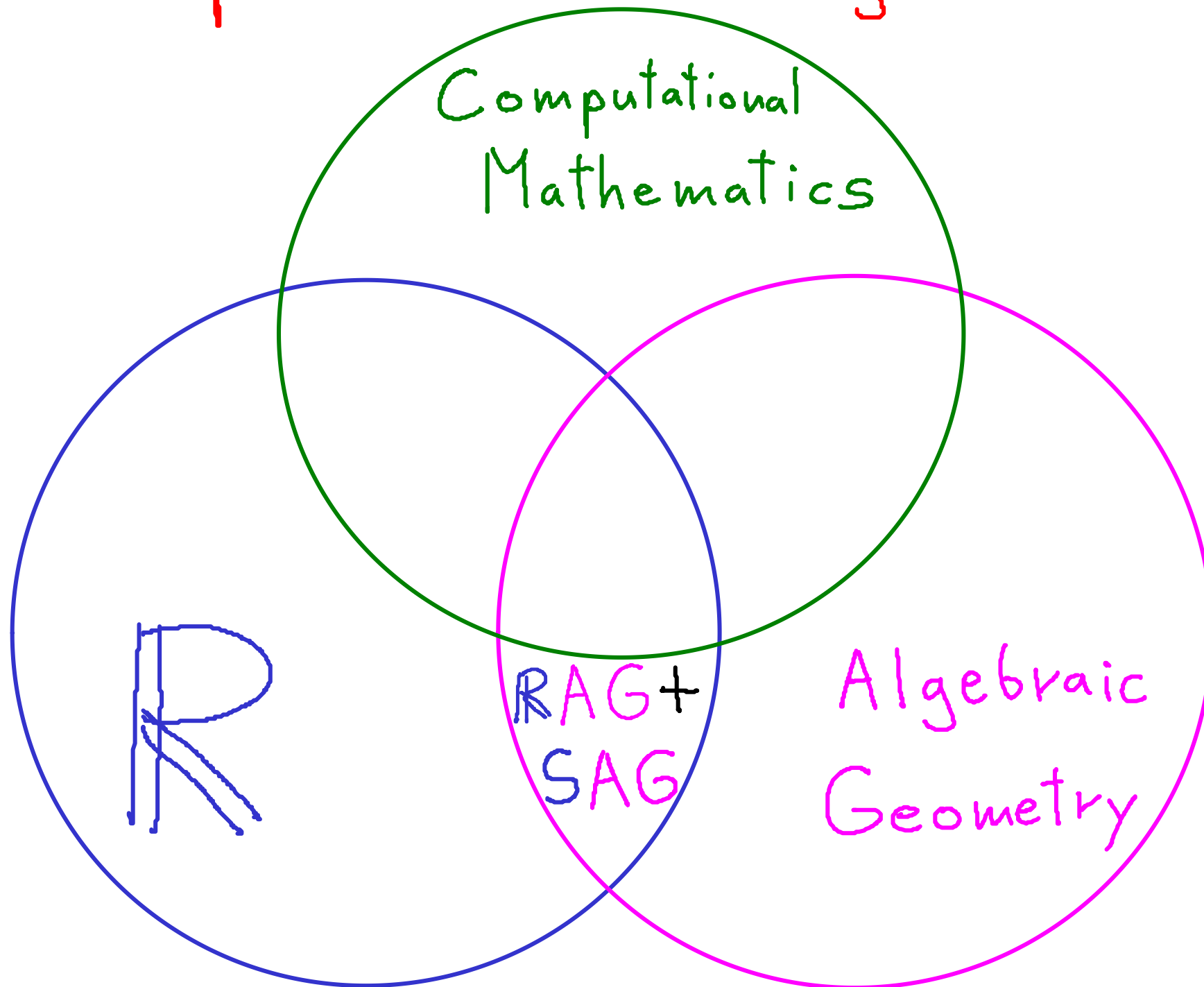
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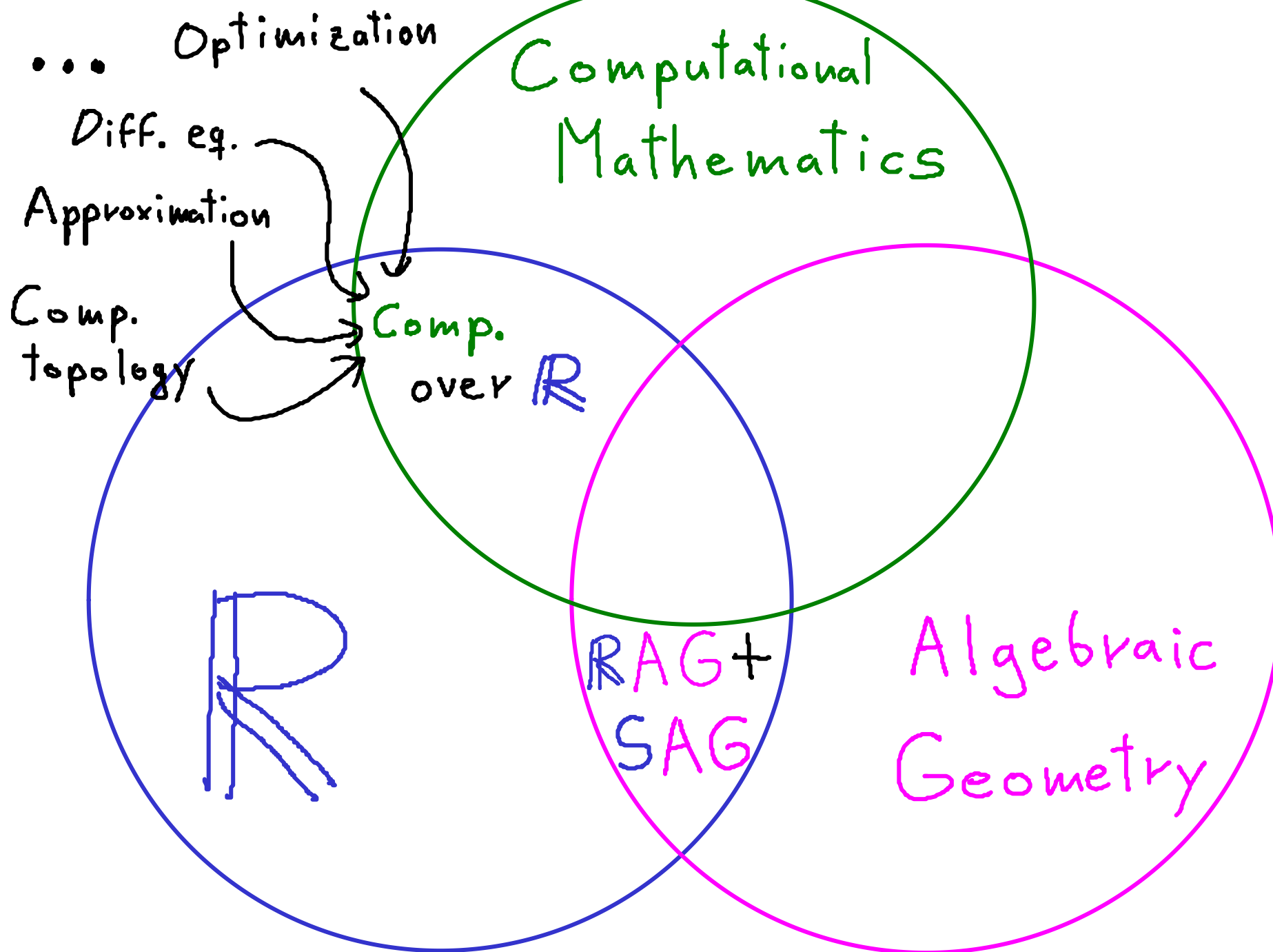
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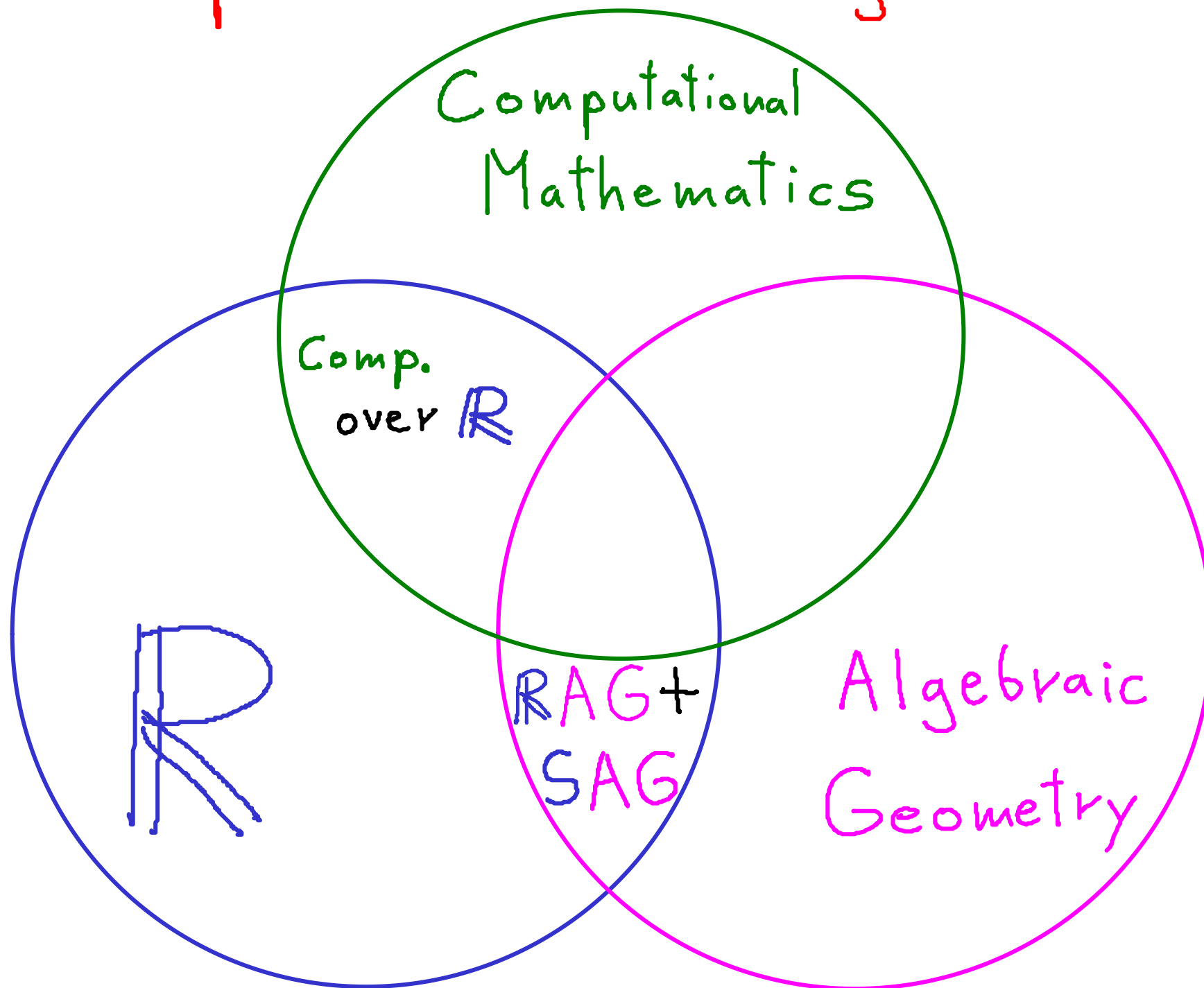
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# Computational Real Algebraic Geometry?



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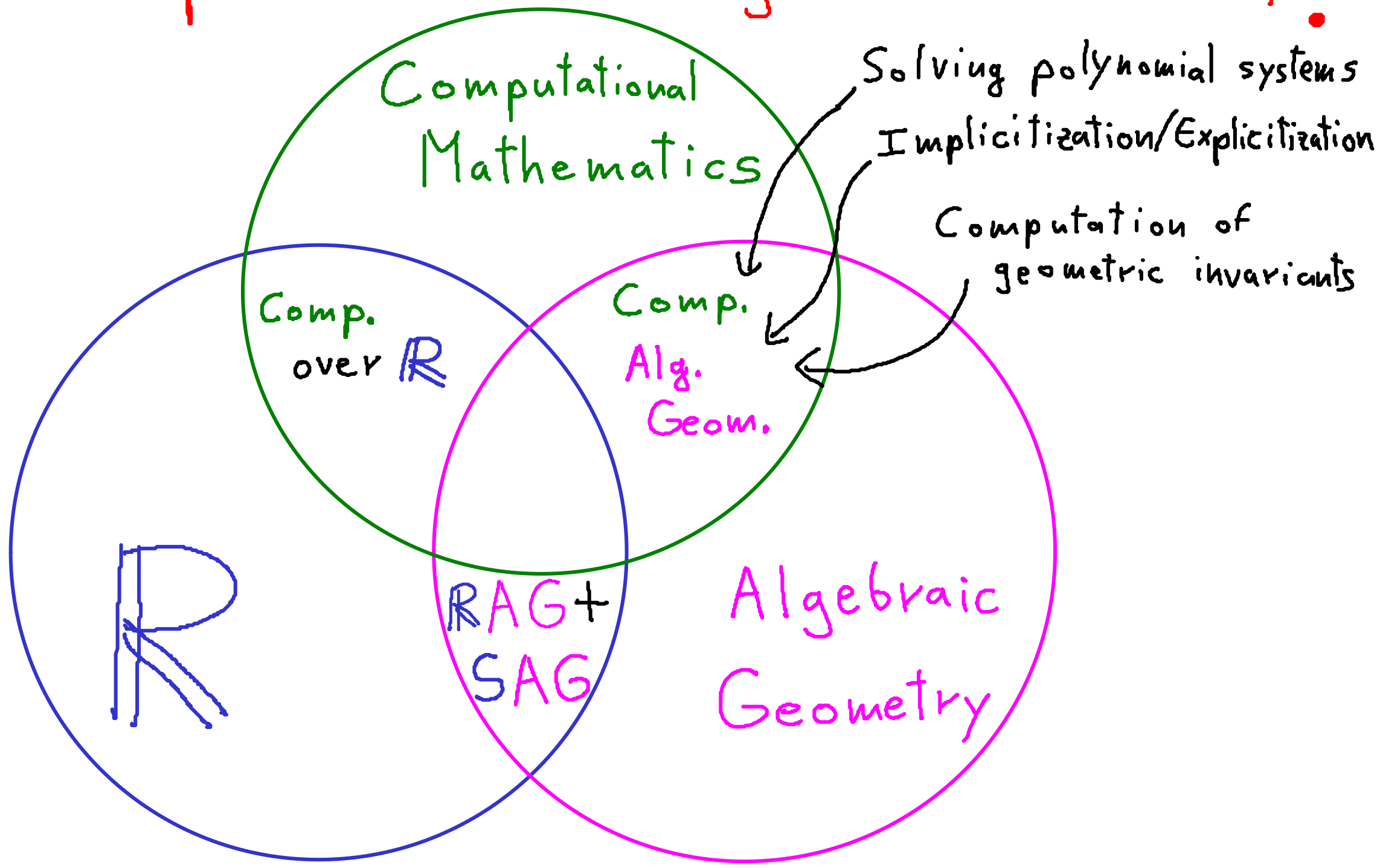
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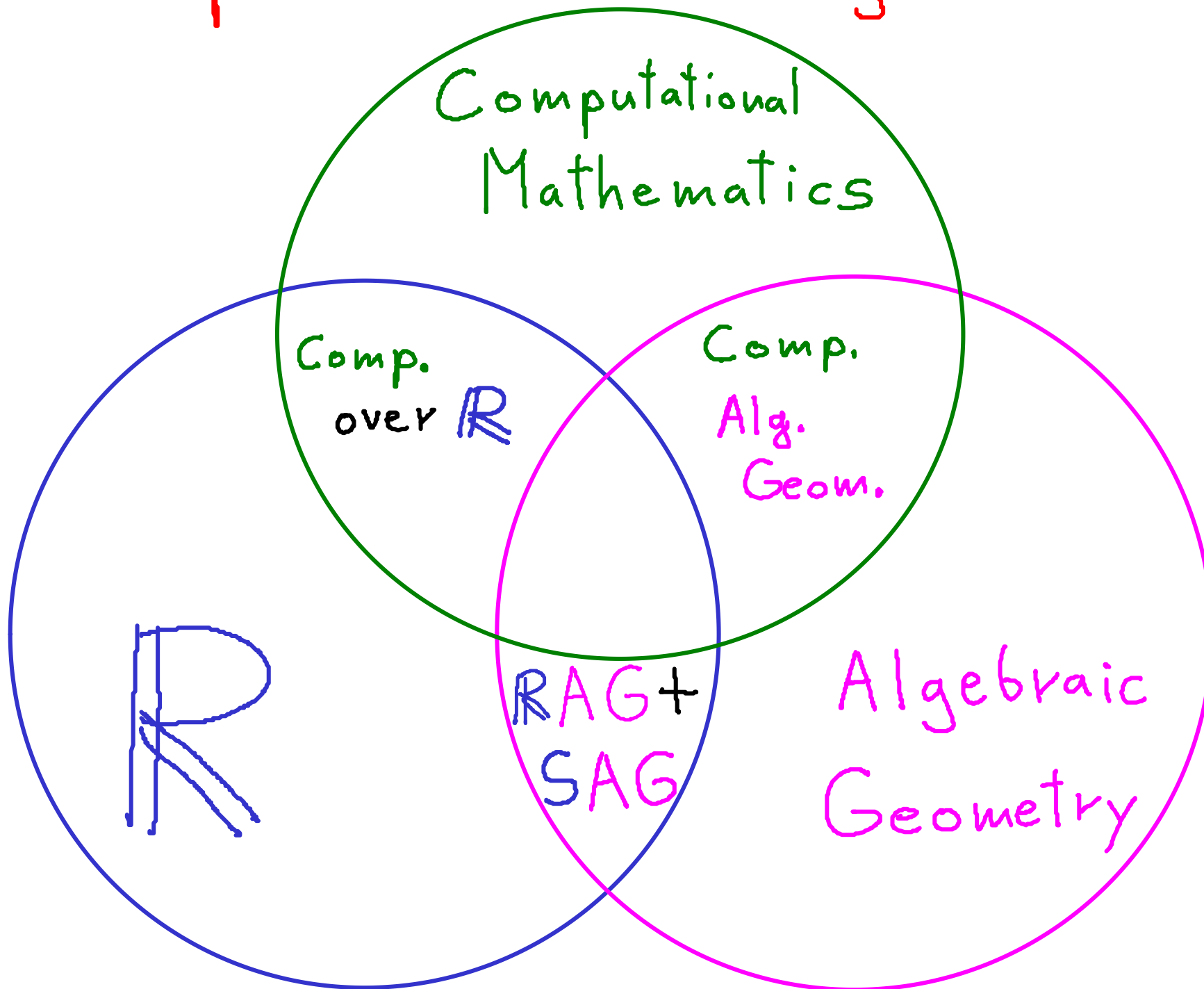
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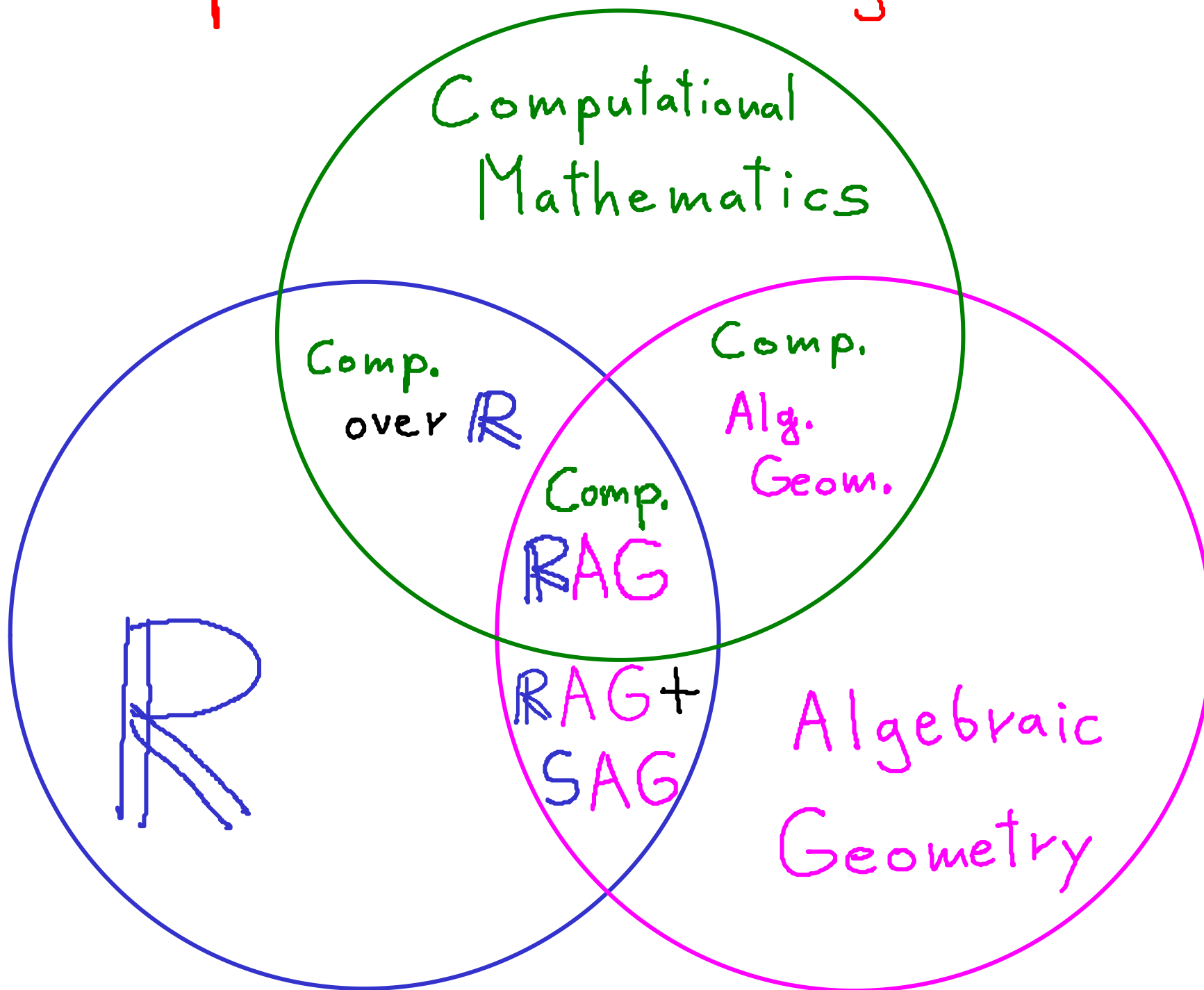
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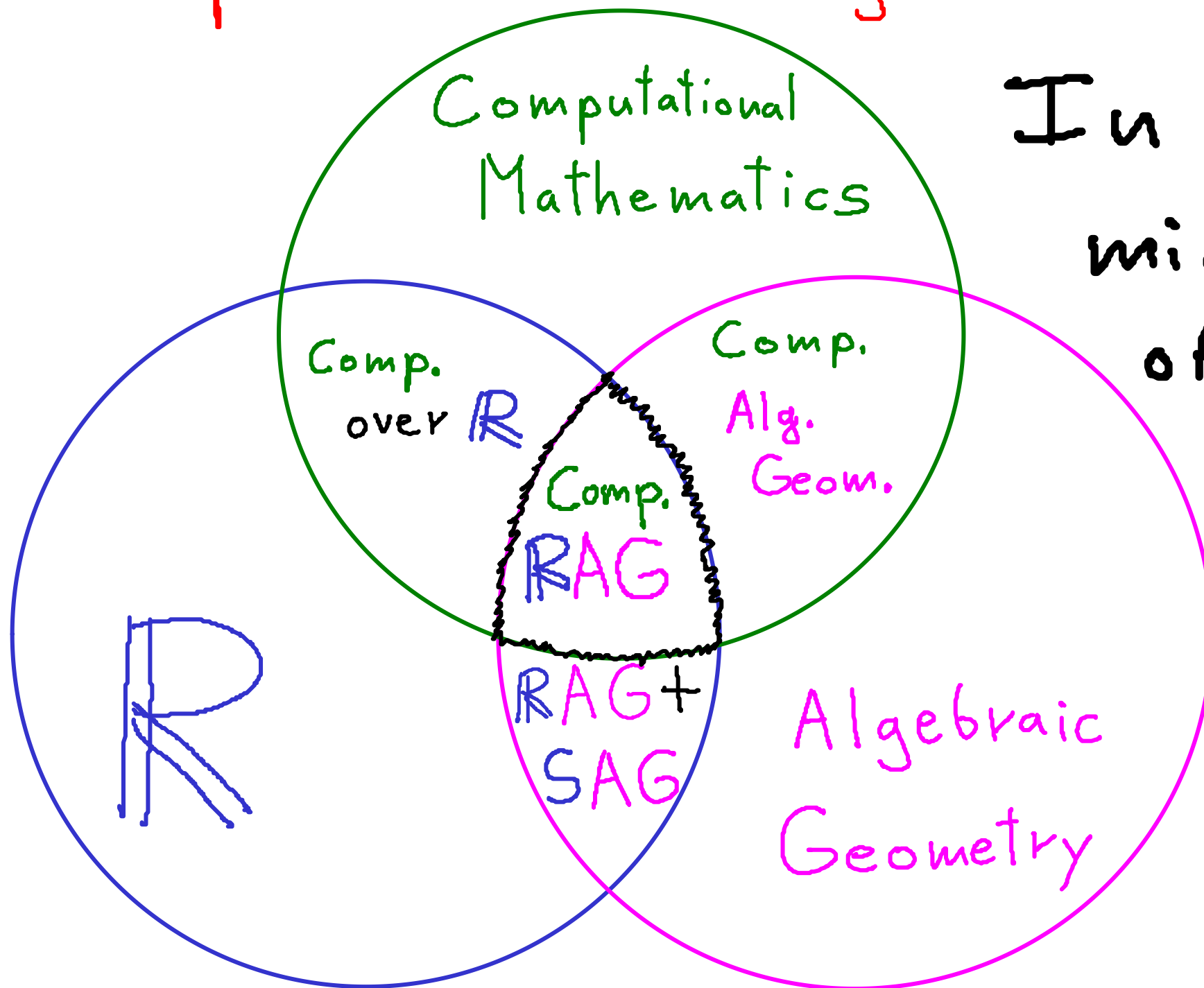
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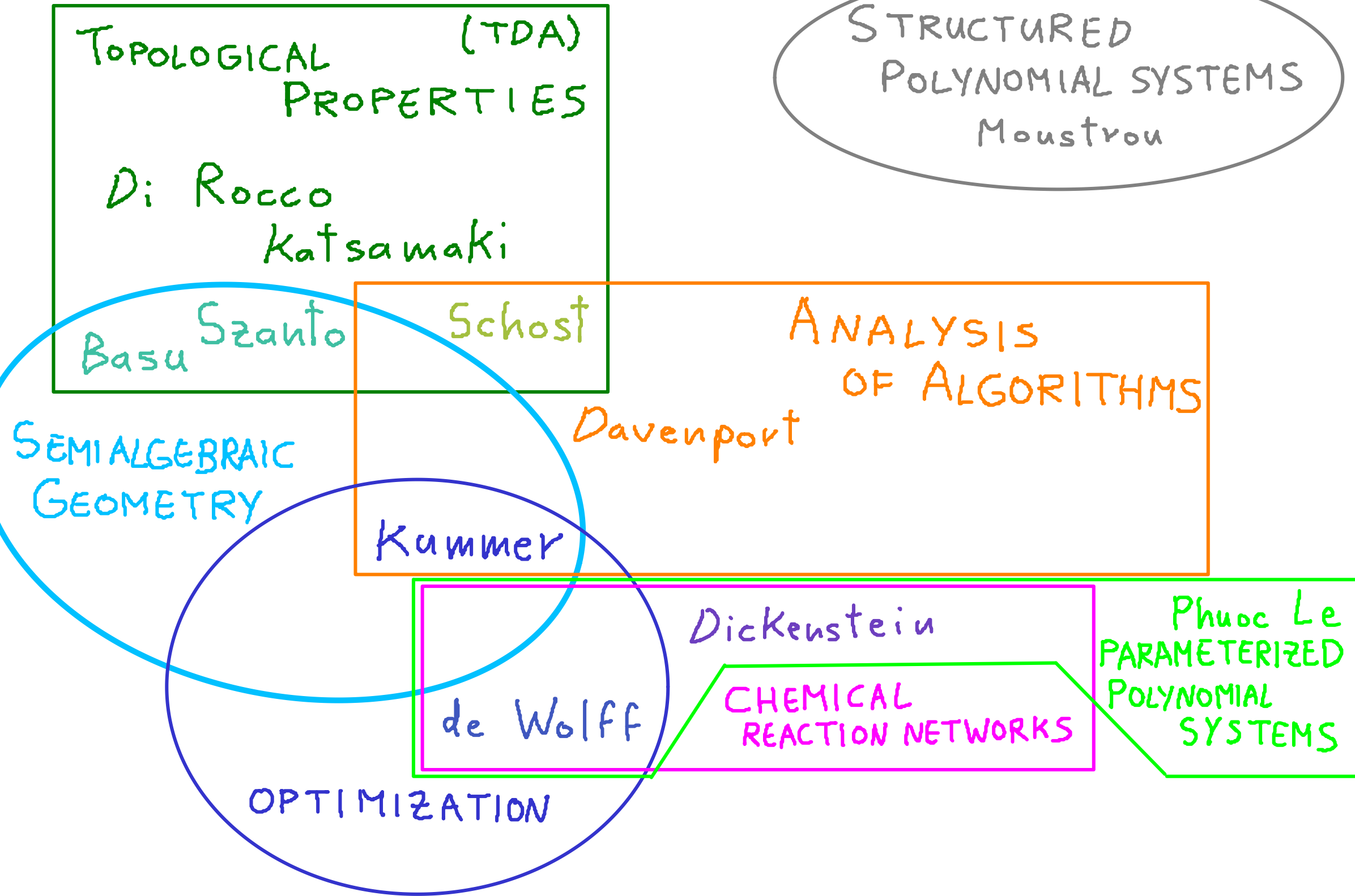
What is...

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In the  
middle  
of the  
action!

# An 'Euler Map' of the minisymposium...



Summing up again...

Minisymposium "Computational Real Algebraic Geometry"

MS11 - Monday, August 16, 2021. 9:00 - 11:00

9:00- 9:25 What's New in Computational Real Algebraic Geometry? - Josué Tonelli-Cueto & Cordian Riener

9:30- 9:55 Efficient Simplicial Replacements of Semi-Algebraic Sets - Saugata Basu

10:00-10:25 Bottlenecks and Algebraic Data - Sandra Di Rocco

10:30-10:55 Computational Real Algebraic Geometry in Riemannian Geometry - Mario Kummer

MS22 - Monday, August 16, 2021. 14:40 - 16:40

14:40-15:05 On Solving Parametric Polynomial Systems over the Reals - Huu Phuoc Le

15:10-15:35 Specht Polynomials and Solutions to Symmetric Systems of Equations - Philippe Moustrou

15:40-16:05 Varieties of Doubly-Exponential Behaviour in Cylindrical Algebraic Decomposition

- James Davenport

16:10-16:35 On the Bit Complexity of Some Algorithms in Real Algebraic Geometry - Eric Schost

MS33 - Tuesday, August 17, 2021. 9:00 - 11:00

9:00- 9:25 Algorithms and Algebraic Operations on Parametric Curves - Christina Katsamaki

9:30- 9:55 Smooth Points on Real Algebraic Sets - Agnes Szanto

10:00-10:25 Sign Conditions for the Existence of at Least One Positive Solution of a Sparse Polynomial System

- Alicia Dickenstein

10:30-10:55 Applications of Soncs and Other Certificates of Nonnegativity in Chemical Reaction Networks

- Timo de Wolff

All times are New York times! (UCT-4)

Thank you

for your attention!

...we hope you enjoy the minisymposium!