

# Kontakt

Informationsblatt vum Fieldgen / No 22

Freideg, 19. Abrëll 2024

LU - 22.4.	MA - 23.4.	ME - 25.4.	JE - 26.4.	VE - 27.4.
9h55 - 11h30 table ronde politique salle Raoul Follereau				
Semaine Projets				

## Hip Hop Marathon

Och dëst Joer mécht eng Klass vum Fieldgen um **Hip Hop Marathon** mat. Iwwer dëse QR-Code kënn der d'Schüler vun der 6P1 bei de Preparatiounen iwwer Internet, Tik Tok oder Instagram begleeden. Mir wënschen hinnen vill Erfolleg.



## The Mesmerizing and yet (mostly) Not Understood Beauty of Mathematics

Mathematics is so present in our society. And yet, we are merely scratching the surface of it. We learn it at school, and we know it is a pretty useful tool. But it is much more than that. Maths is a field of which you can only appreciate the beauty once you discover its true meaning. If you aren't aware of its amazing applications, you may find it useless and boring. For instance, the mathematician Edward Frenkel recalls: "I thought it was extremely boring. And since the only math I knew was what was presented at school, I thought that was it." He had a great interest in physics, but the books he read didn't have any mathematical explanations in them, so he couldn't fully see the extent to which maths was important in physics. It turns out, though, that once a mathematician named Evgeny Evgenievich Petrov opened a physics book in front of him, filled with mathematics, Frenkel grasped its true meaning: "You think what they teach you at school is mathematics? No, this is real mathematics." - But it doesn't have to be that way. Allow me to give you a brief insight into WHY and HOW mathematics is useful and why it is elegant.

Mathematics is much more present than one may assume: physics, material science, biology, healthcare, finance, statistics, fraud-prevention, cryptography, architecture, just to name a few fields. For instance, the RSA (Rivest-Shamir-Adleman) encryption algorithm, which is based on modular arithmetic and prime numbers, is used on a day-to-day basis to prevent hackers from reading credit card numbers and emails. Although it is undeniable that mathematics alone cannot describe the world, that shouldn't reduce our astonishment about what it IS capable of. The famous mathematician and physicist Carl Friedrich Gauss once wrote that 'Mathematics is the queen of sciences'.

Somehow, mathematics is astonishingly effective in helping us out in a plethora of fields. And strangely enough, the solutions it provides are not just useful. They are elegant too! What does that mean, though? First, math's 'simplicity' is key to its beauty. Math's ability to yield simple, compact solutions to problems is satisfying. In other words, a solution which contains many superfluous symbols and numbers isn't considered 'mathematically simple'. In addition, mathematical statements are also elegant from an aesthetic perspective. And last, but very importantly, it is fascinating to see how the different areas in mathematics are interwoven in a highly complex way. The Langlands Program clearly illustrates this.

Léo Hellinckx, 3CB



## COUP DE COEUR DU cdi

Eine wie Alaska - John Green



Dës Woch stelle mir lech *Eine wie Alaska* vum John Greene fir. D'Alaska ass eng vun den Heldinnen aus **Book Rebels**.

„Miles hat die Schule gewechselt. Auf dem Internat verknallt er sich in die schöne Alaska. Sie ist das Zentrum ihres Sonnensystems, der magische Anziehungspunkt des Internats. Wer um sie kreist, ist glücklich und verletzlich gleichermaßen, euphorisch und immer nah am Schulverweis. Alaska mag Lyrik, nächtliche Diskussionen über philosophische Absurditäten, heimliche Glimmstängel im Wald und die echte wahre Liebe. Miles ist fasziniert und überfordert zugleich. Wer ist Alaska wirklich?“

AM CDI!

## Mir félicitéieren !

Félix

Jong vun der  
Mme Sandy Bormann

gebuer den  
24. Mäerz 2024

For more information on the Langlands Program, have a look at the following video:

- [https://www.youtube.com/watch?v=\\_bJeKUosqoY](https://www.youtube.com/watch?v=_bJeKUosqoY)

### Resources/additional information:

- <https://www.youtube.com/watch?v=Osh0-J3T2nY>
- <https://www.britannica.com/biography/Carl-Friedrich-Gauss>
- <https://www.nature.com/articles/s43588-022-00293-2>
- The Music of the Primes: Searching to Solve the Greatest Mystery in Mathematics, by Marcus du Sautoy
- <https://www.arte.tv/en/videos/109799-000-A/secrets-of-the-surface/>
- <https://www.britannica.com/topic/RSA-encryption>
- <https://www.britannica.com/science/arithmetic>
- Love and Math, by Edward Frenkel