

STELLINGEN

behorend bij het proefschrift

Codes, arrangements, matroids, and their polynomial links

van

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1. The two-variable zeta polynomial gives us a way to write the extended weight enumerator with respect to a basis of MDS weight enumerators (Theorem 3.3 of this thesis). Similar statements hold for the generalized weight enumerator (Theorem 3.11) and the coboundary polynomial (Theorem 11.10). One might ask if we can extend these results to the Möbius and spectrum polynomial. Answering this question does not lead to interesting new mathematical insights.
2. To investigate relations between the Tutte polynomial and the spectrum polynomial, it is a good idea to focus on simple matroids and study the relation between the coboundary polynomial and the reciprocal alternating spectrum polynomial (compare Definitions 10.1 and 13.15).
3. Mathematical beauty, as every kind of beauty, is in the eye of the beholder. But the lengthy calculation in the proof of Theorem 3.8 will be considered ugly by a majority of mathematicians.
4. Ending every paper with more than one question in the “Further questions” section makes the number of questions grow exponentially.
5. The Dutch “BasisKwalificatie Onderwijs” (an obligatory teaching certificate for academic staff) is a good step in improving the level and image of teaching at universities. A next step could be to allow PhD students to get this certificate.
6. When Sherlock Holmes was stuck on a case, he played his violin to take off his mind. This does not only help when you are stuck at solving a crime, but also when you are stuck in a mathematical proof.
7. As a woman in mathematics you have the advantage of using your appearance to get attention for your research. The difficulty of balancing this advantage against the disadvantage of attracting attention that does not focus on your research, is often underestimated.
8. 32.32.32.361 is a valid Dutch bank account number, because 121 is divisible by 11.
9. Pink is an excellent color for stuff that doesn’t necessarily have to be pretty, but does want to be seen. Examples include ski clothing, a suitcase, an evening dress for carnival, and an iPad cover.
10. Every girl needs a role-model.