Computeralgebra (2013)-Aalborg Universitet
Spiseseddel 9

9. gang, tirsdag d. 8. oktober, 8:15-12:00 i lokale G5-109

- 8:15-10:00 Forelæsning: The discrete Fourier transform and the fast Fourier transform (sider 227–237).
- 10:00-12:00 Arbejde i grupper: Opgaver fra [GG]: 8.10 (ikke iv), A, 8.4, B, C, D, E, 8.9 (kun i).

  Opgave A: Trace Karatsuba's algorithm for multiplying two polynomials of degree lower than 4.

  Opgave B: Write a table/list with all the elements of $\mathbb{F}_{32}$ in Sage (or Maple) where you consider the representation using a power of a primitive element and the polynomial notation.

  Opgave C: Write Algorithm 8.1 (Karatsuba) in a Computer Algebra System.

  Opgave D: Check the computations in example 8.6 in [GG].

  Opgave E: Which elements of $\mathbb{F}_3[X]/\langle X^3 + X + 1\rangle$ are units and compute their inverse?, solve it using Sage/Maple.

Med venlig hilsen,

Diego