not "The Butterfly Algo" SLIDE 2

s/.../A Butterfly for Non-Uniform Fourier

Suggest: Structure of Butterfly Algos

1

SLIDE 2: maybe ditch code box

SLIDE 8: remove code boxes

SLIDE 11: ppl think of FFT AS a Butterfly; this (non-uniform) is referred to as "analysis-based" butterfly

↳ maybe around 1st slide

S16: NAIVE "IS" QUADRATIC.

S17: Kinda busy

S18: Shouldn't it be 10^{-16}???

S21: Add $\sigma_0, \sigma_1, \sigma_2$ -- labels

S23: Keep $[0,1)$ toss $s_j = j/N$

σ_j as fn. of L, j (maybe? maybe not?)

529: Also need "scaling"
double t and half s

$$T_d(t)\,S_d(s) = T_d(2t)\,S_d(s/2)$$

Maybe not necessary?

531: reminder of the old expression

$\hat{f}(t) \approx$ both times need \approx

Why is $\hat{f}(t) = \sum_{\sigma} \Pi(t,\sigma)\, D(\sigma)$ (both are made up of exponentials)

different than $\sum_{\sigma,\alpha} \Pi'(t,(\sigma,\alpha))\, D((\sigma,\alpha))$

(Π': still has some exponential; D: both are made up of polynomials)

What is Π'? Π was the kernel, but WTH is Π'?

Π is a matrix in $\mathbb{R}^n_s \otimes \mathbb{R}^n_t$

Π' is a matrix in $\mathbb{R}^n_s \otimes \mathbb{R}^n_\alpha \otimes \mathbb{R}_t$

---

stopped at SLIDE 32