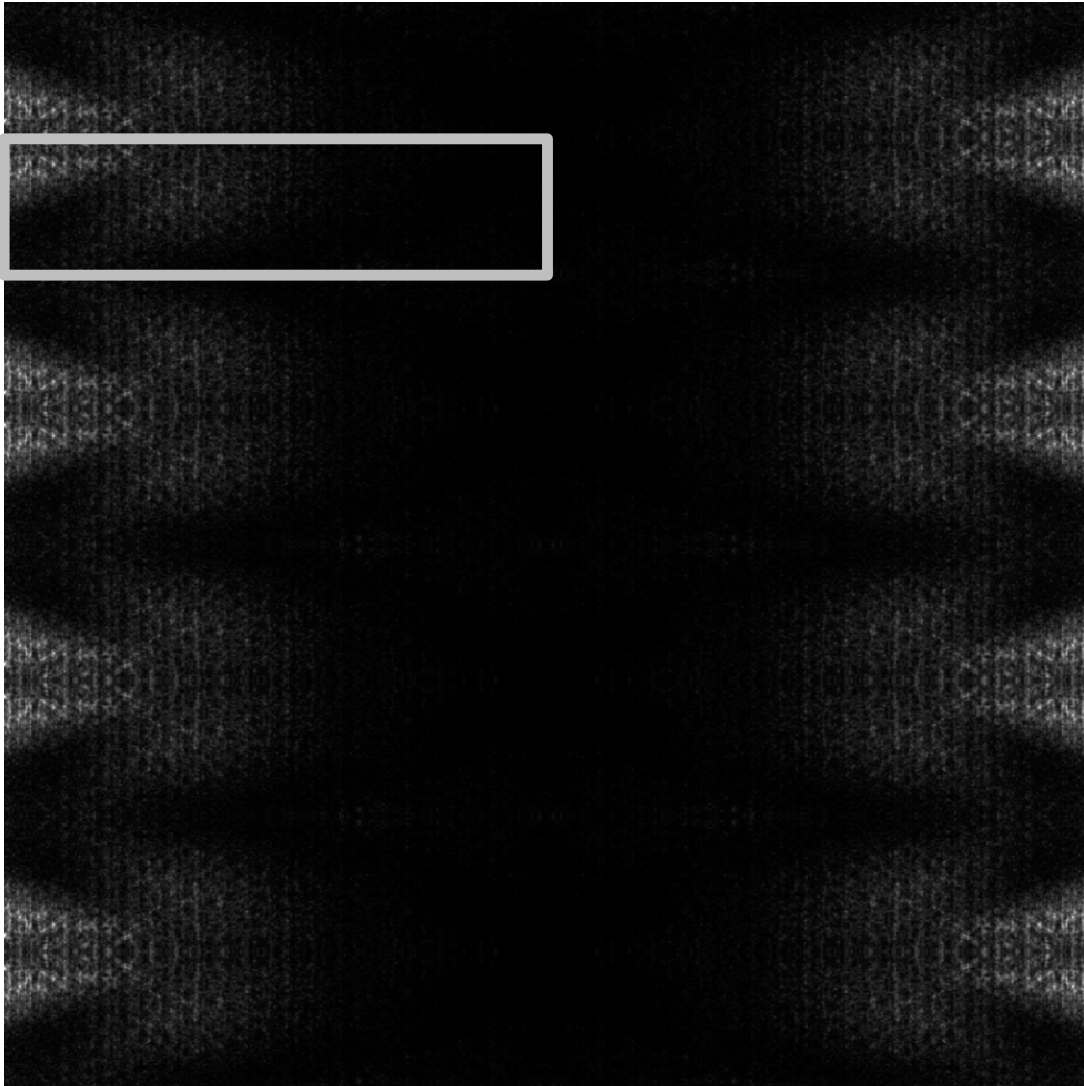


BEFORE FOURIER TRANSFORMING ...

How to obtain $g[\mathbf{x}] \in \mathcal{C}^0[\mathcal{T}]$?

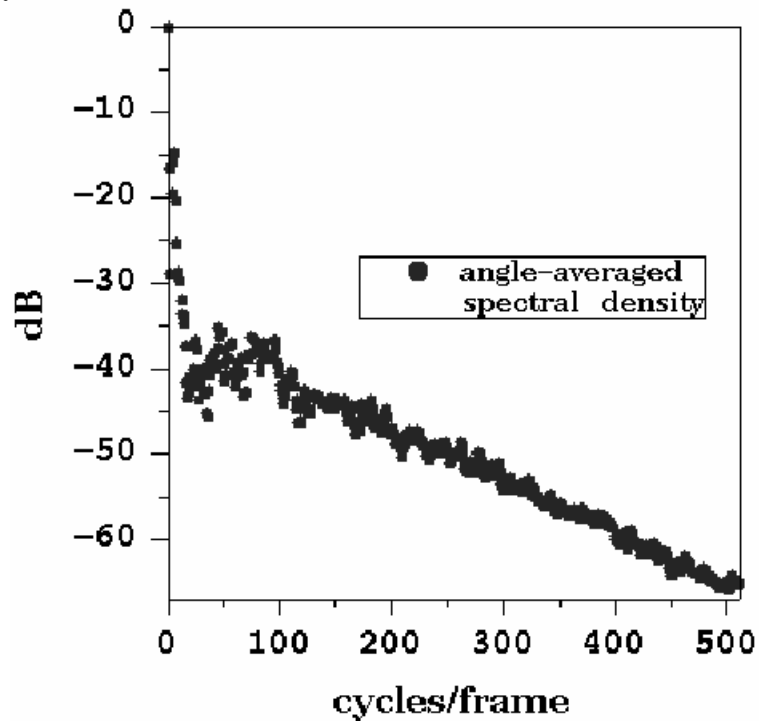
flop[*flip*⁽³⁾[.]]



SPECTRUM ENHANCEMENT

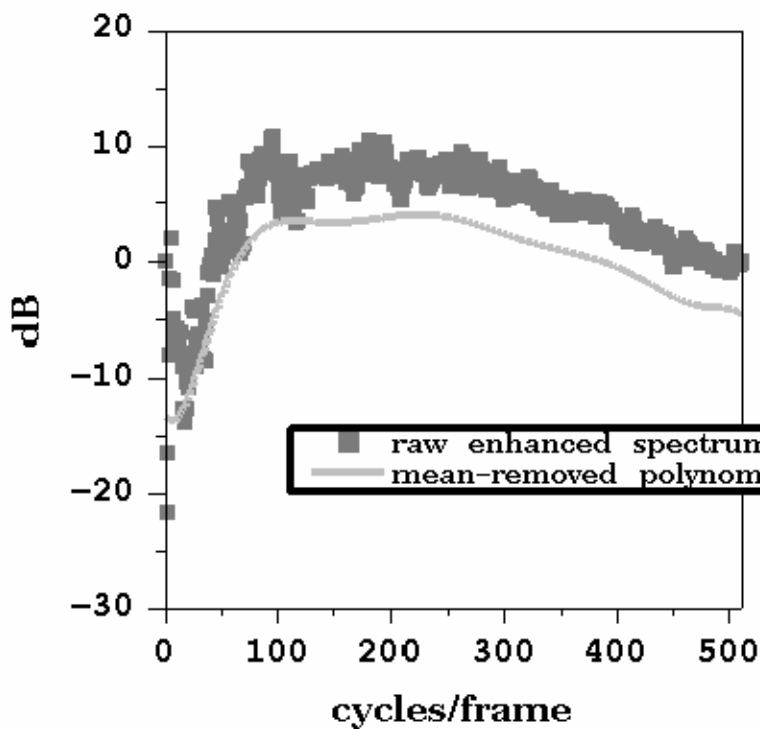
From the raw spectrum ...

a07b03b



... to the **enhanced spectrum** (model exponent $p = 2.4$)
and the **interpolating polynomial** (degree = $d - 1 = 9$)

a07b03b



**scale=1 \doteq
512 polynome values**

RATING OF Ψ :

A SADDLE POINT PROBLEM

Control 5-tuple: $\Psi = \{\mathcal{U}, \vartheta_H, p, d, u_H\}$.

$\mathcal{U} \in \{u_1, u_2\}$; $\vartheta_H = \pi/4$, fixed; $u_H = 2^k - 1$; $5 \leq k \leq 9$.

For each $\{\mathcal{U}, \vartheta_H, u_H\}$:

define

FoM (figure of merit)

d) $\min_{jk} \text{dist}[j, k]$

D) $\max_k \text{Diam}[k]$

S) $\max_k \frac{\text{InClass}[k] \text{SumOfSquares}}{\text{BetweenClassSumOfSquares}}$

seek for
saddle point

$$\max_{p,d} \min_{jk} \text{dist}[j, k]$$

$$\min_{p,d} \max_k \text{Diam}[k]$$

$$\min_{p,d} \max_k \frac{I[k]}{B}$$

Multiobjective optimization \Rightarrow

\Rightarrow (sub)optimal solution $\hat{\Psi}$.