Fourier-domain imaging condition for shot-profile migration

Brad Artman
SEP120 pages 325-331
brad@geo.stanford.edu

Goals

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FDIC & aliasing

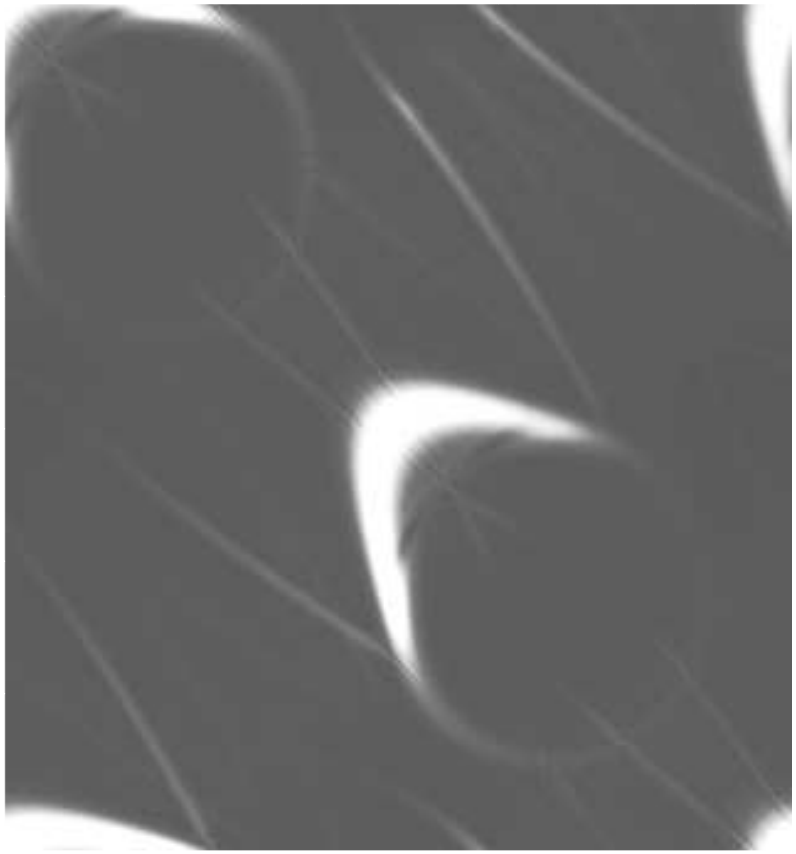
derivation

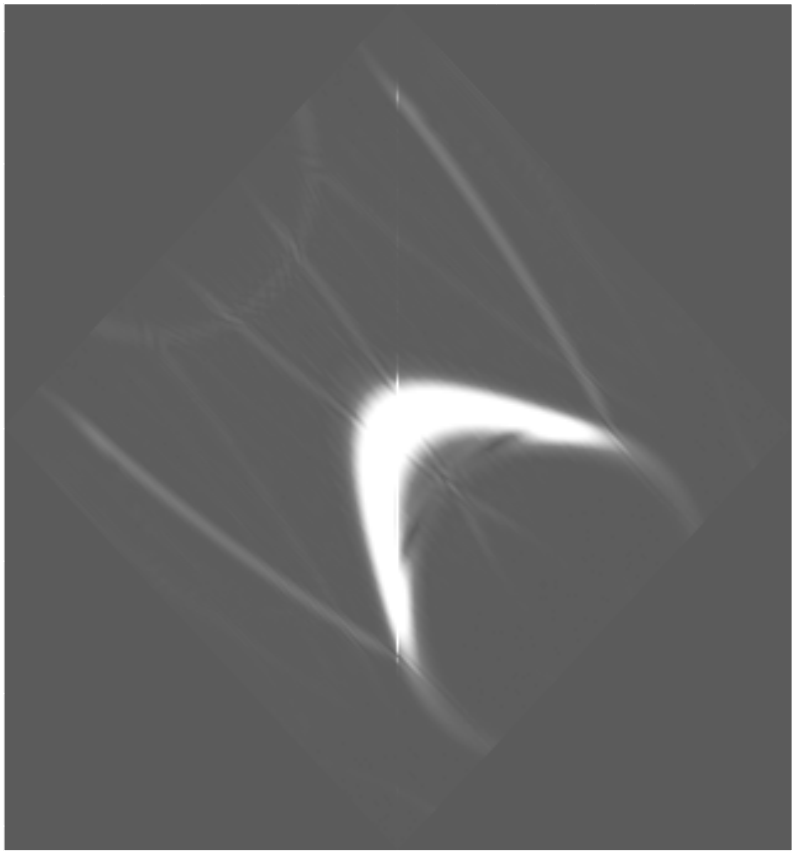
$x - z$ impulse response

$x - h$ impulse response

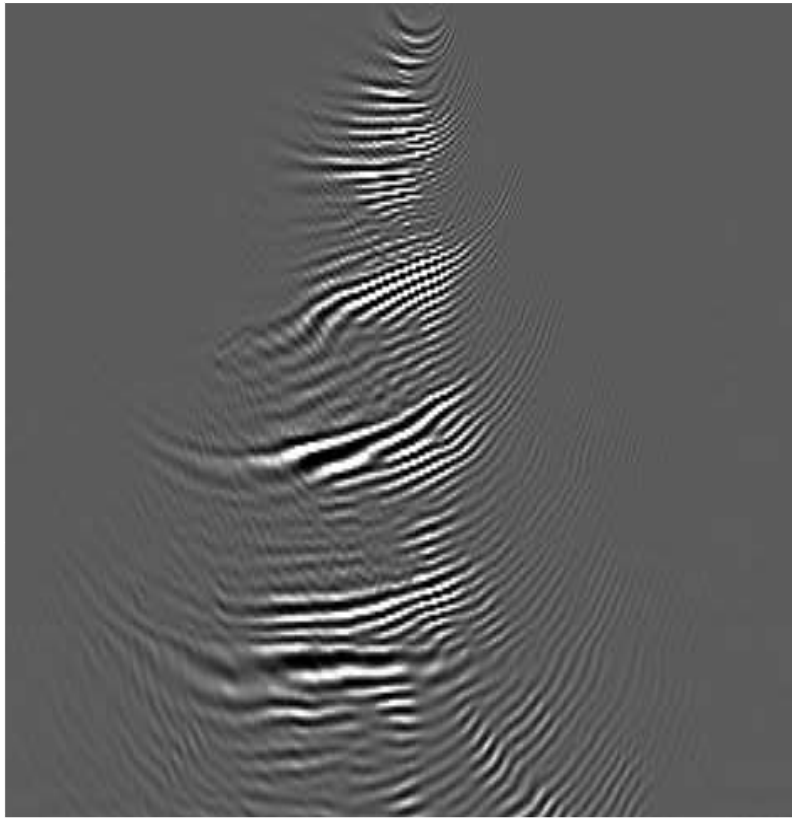
$x - h$ impulse response

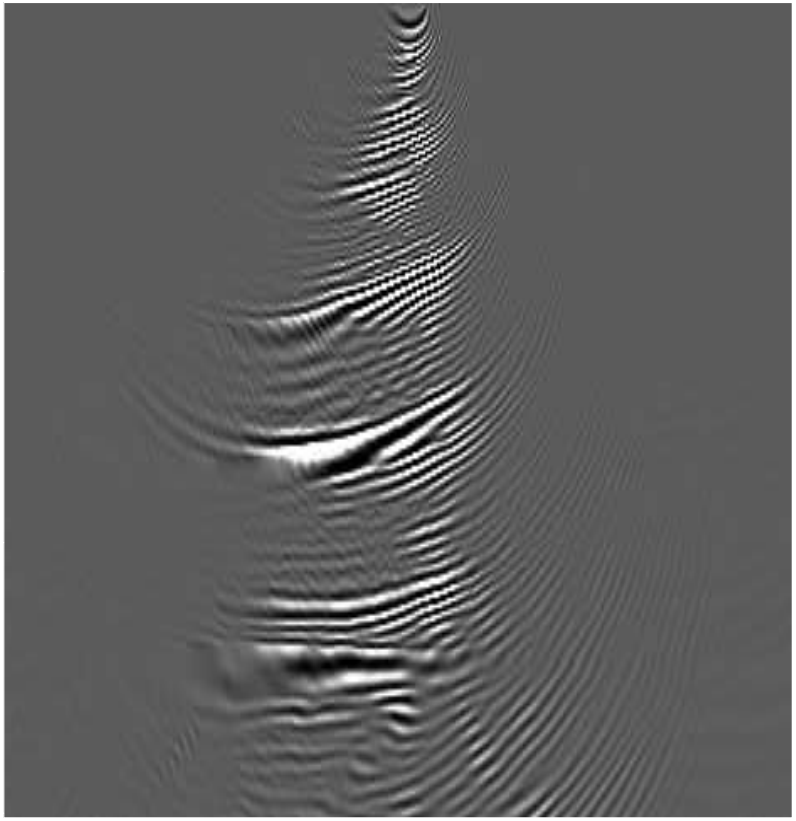
$x - h$ impulse response



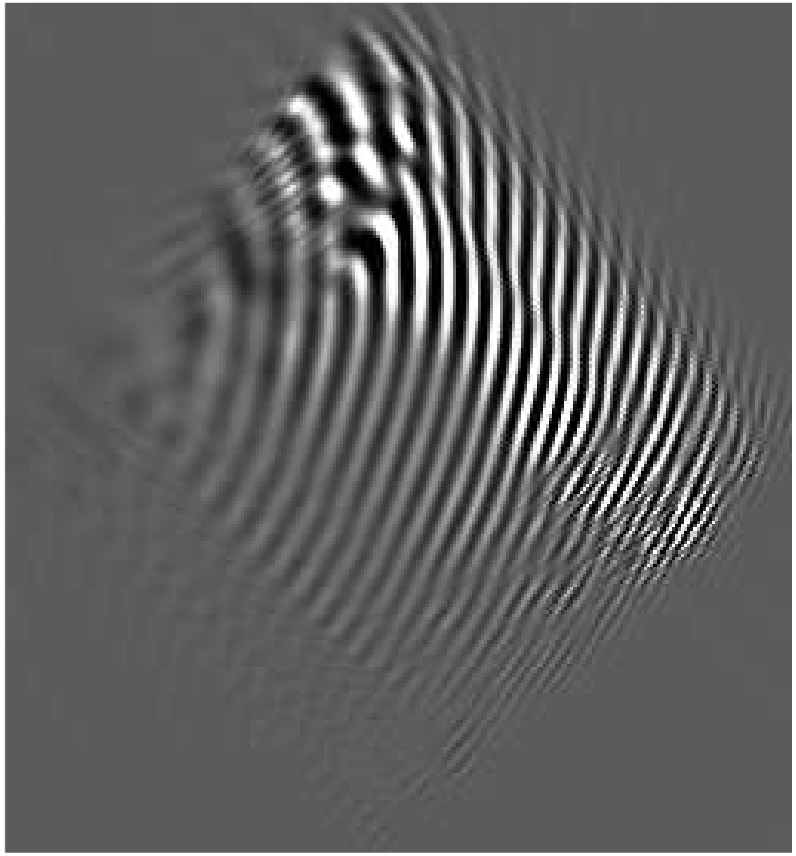


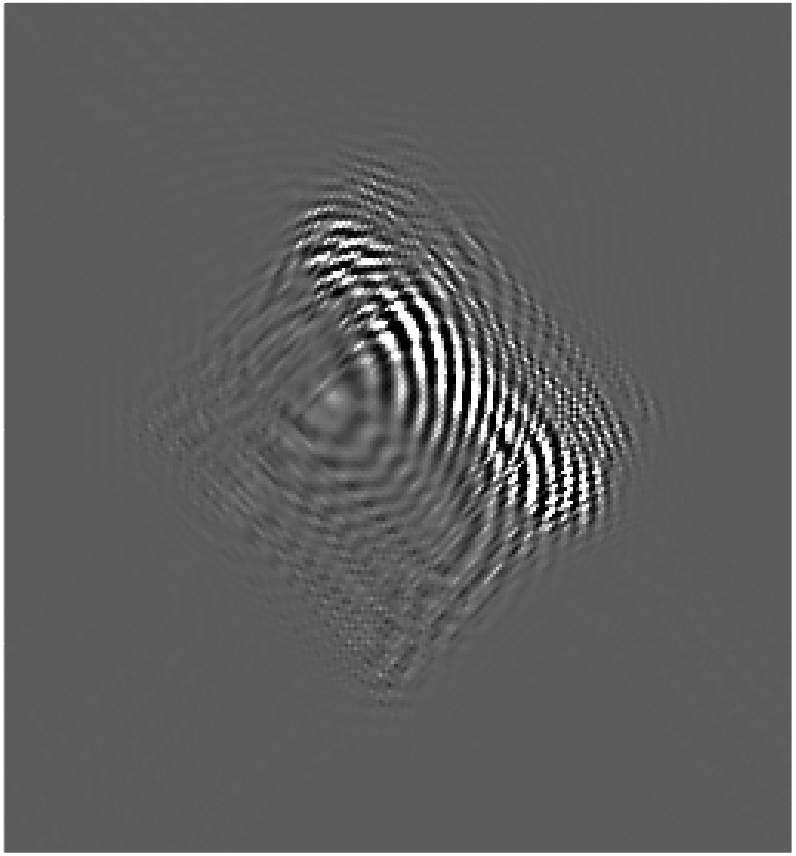
Marmousi shot





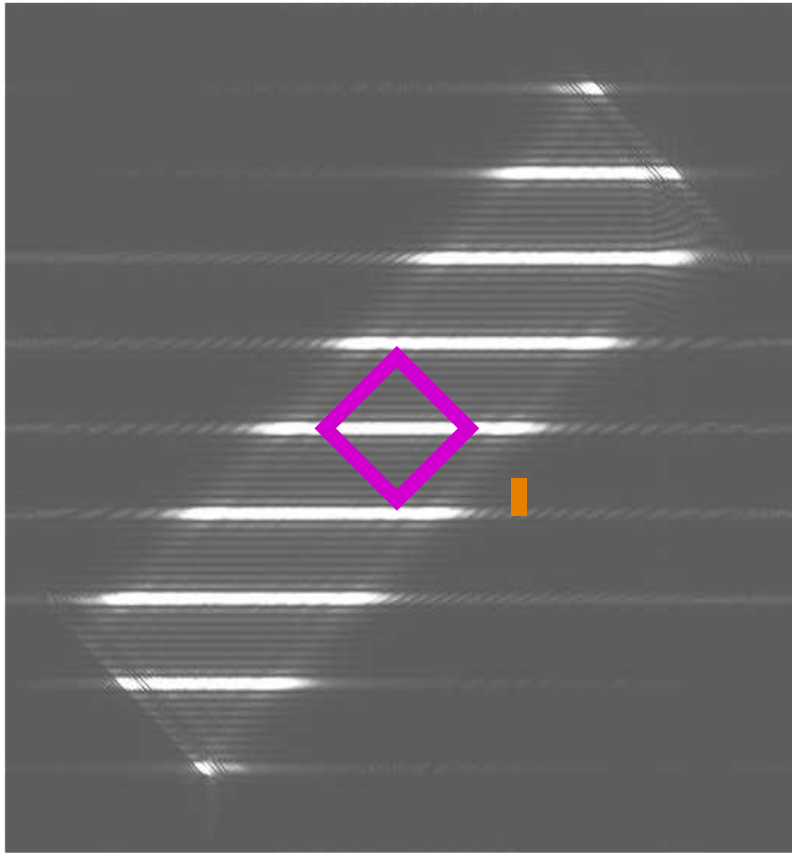
Evanescence filter

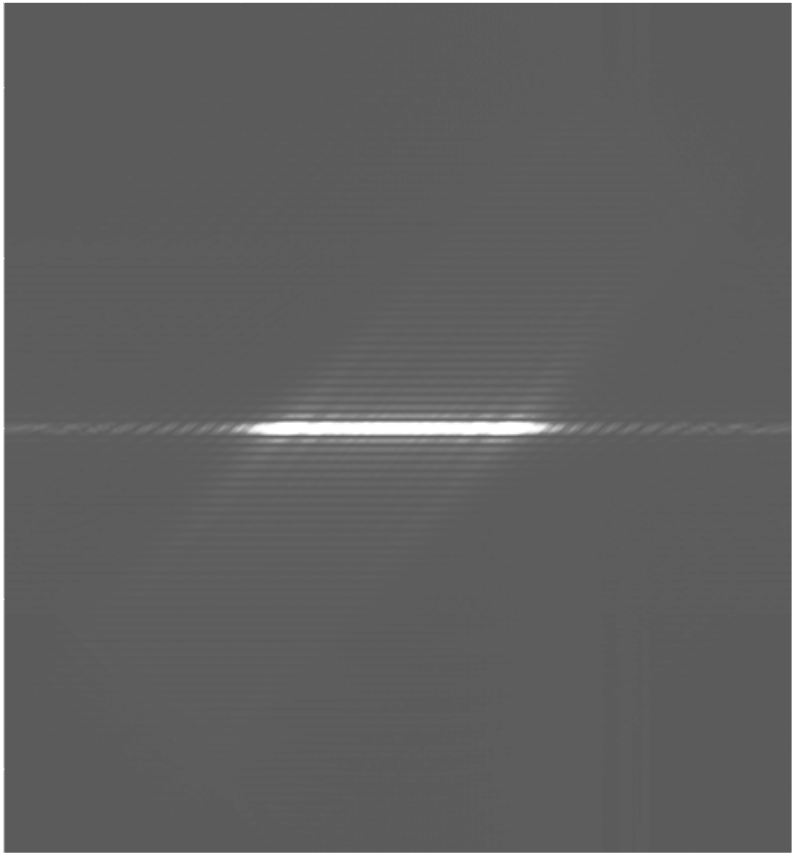




Operator aliasing

Operator aliasing





FDIC & aliasing

$$\hat{U}(\tfrac{-3}{2})\hat{D}^*(\tfrac{-1}{2}) \quad \hat{U}(\tfrac{-2}{2})\hat{D}^*(\tfrac{-2}{2}) \quad \hat{U}(\tfrac{-1}{2})\hat{D}^*(\tfrac{-3}{2})$$

$$\hat{U}(\tfrac{-2}{2})\hat{D}^*(0) \qquad\qquad \hat{U}(0)\hat{D}^*(\tfrac{-2}{2})$$

$$\hat{U}(0)\hat{D}^*(\tfrac{2}{2}) \qquad\qquad \hat{U}(\tfrac{2}{2})\hat{D}^*(0)$$

$$\hat{U}(\tfrac{1}{2})\hat{D}^*(\tfrac{3}{2}) \qquad \hat{U}(\tfrac{2}{2})\hat{D}^*(\tfrac{2}{2}) \qquad \hat{U}(\tfrac{3}{2})\hat{D}^*(\tfrac{1}{2})$$

Conclusion

Thanks

Derivation 1

Derivation 2

Derivation 3

return