

- $L_b$  : correlation length-scale,  $\text{var}(\sigma^b)$ .

- Grid point variance :

$$\sigma_i^b = 1 + \text{var}(\sigma^b) \times \sin(2\pi(i-1)/n), \quad i = 1..n$$

- Spectral variance :

$$\sigma_0^{b,spec} = 1$$

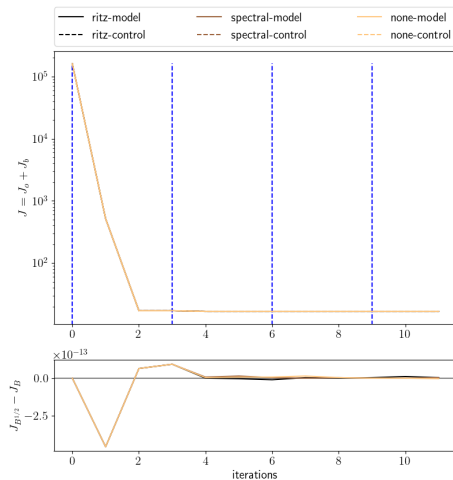
$$\sigma_{2(i-1)}^{b,spec} = 2 \exp(-2(\pi(i-1)L_b)^2), \quad i = 1..n/2$$

$$\sigma_{2(i-1)+1}^{b,spec} = \sigma_{2(i-1)}^{b,spec}$$

$$\sigma_{n_{max}}^{b,spec} = \exp(-2(\pi n_{max}/2)L_b)^2)$$

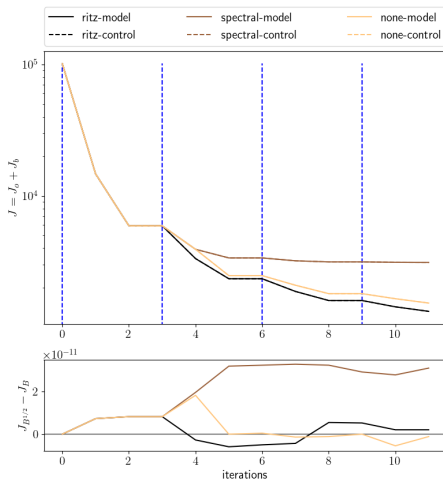
# Full resolution example

$\sigma^o : 0.01, n : 128$

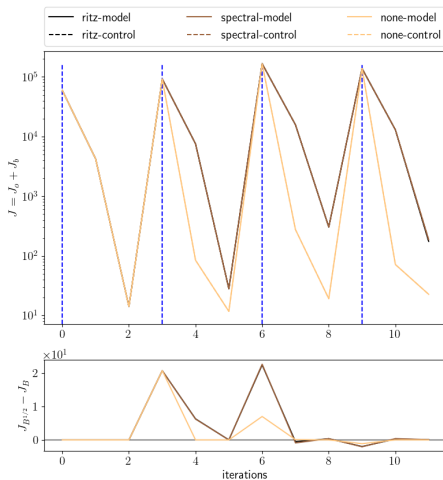


# Full resolution example with a more complex example

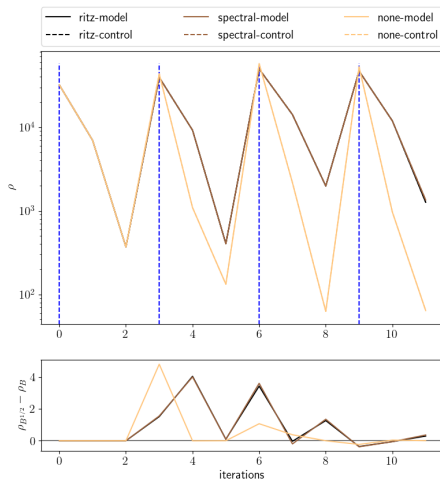
$\sigma^o : 0.1, n : 2048$



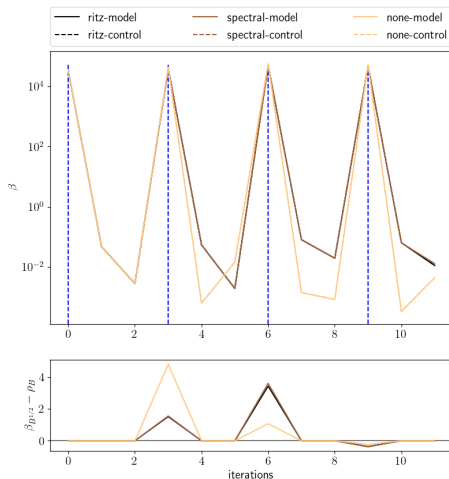
$\sigma^o : 0.01, n : 128$



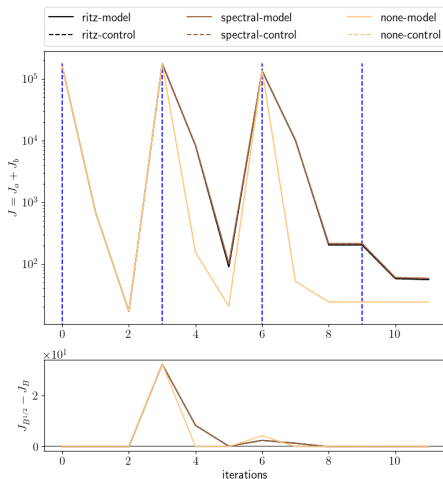
$\sigma^o : 0.01, n : 128$



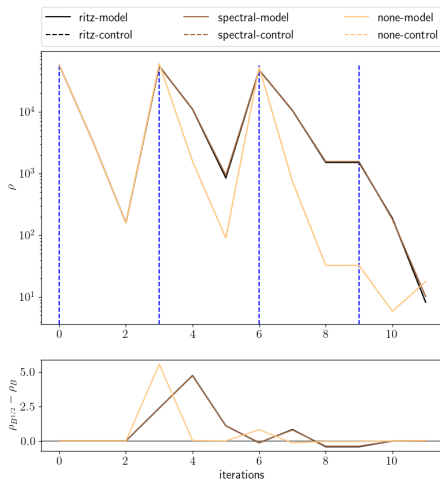
$\sigma^o : 0.01, n : 128$



$\sigma^o : 0.01, n : 128$

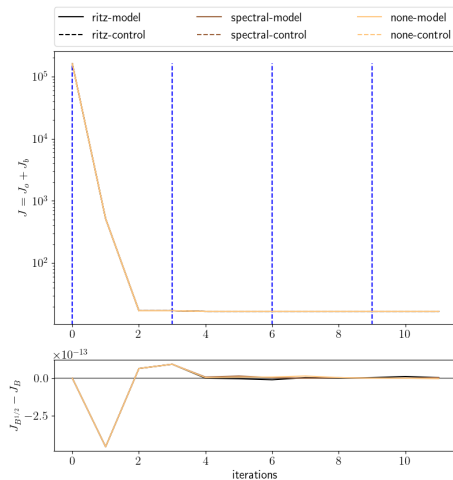


$\sigma^o : 0.01, n : 128$

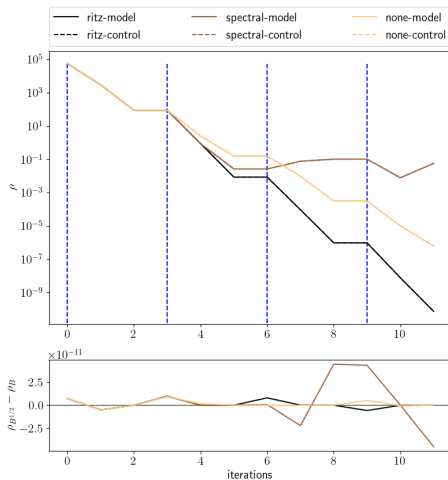




$\sigma^o : 0.01, n : 128$



$\sigma^o : 0.01, n : 128$



# resolution x2 - no spectral interpolation for grid points

$\sigma^o : 0.01$ ,  $n : 128$

