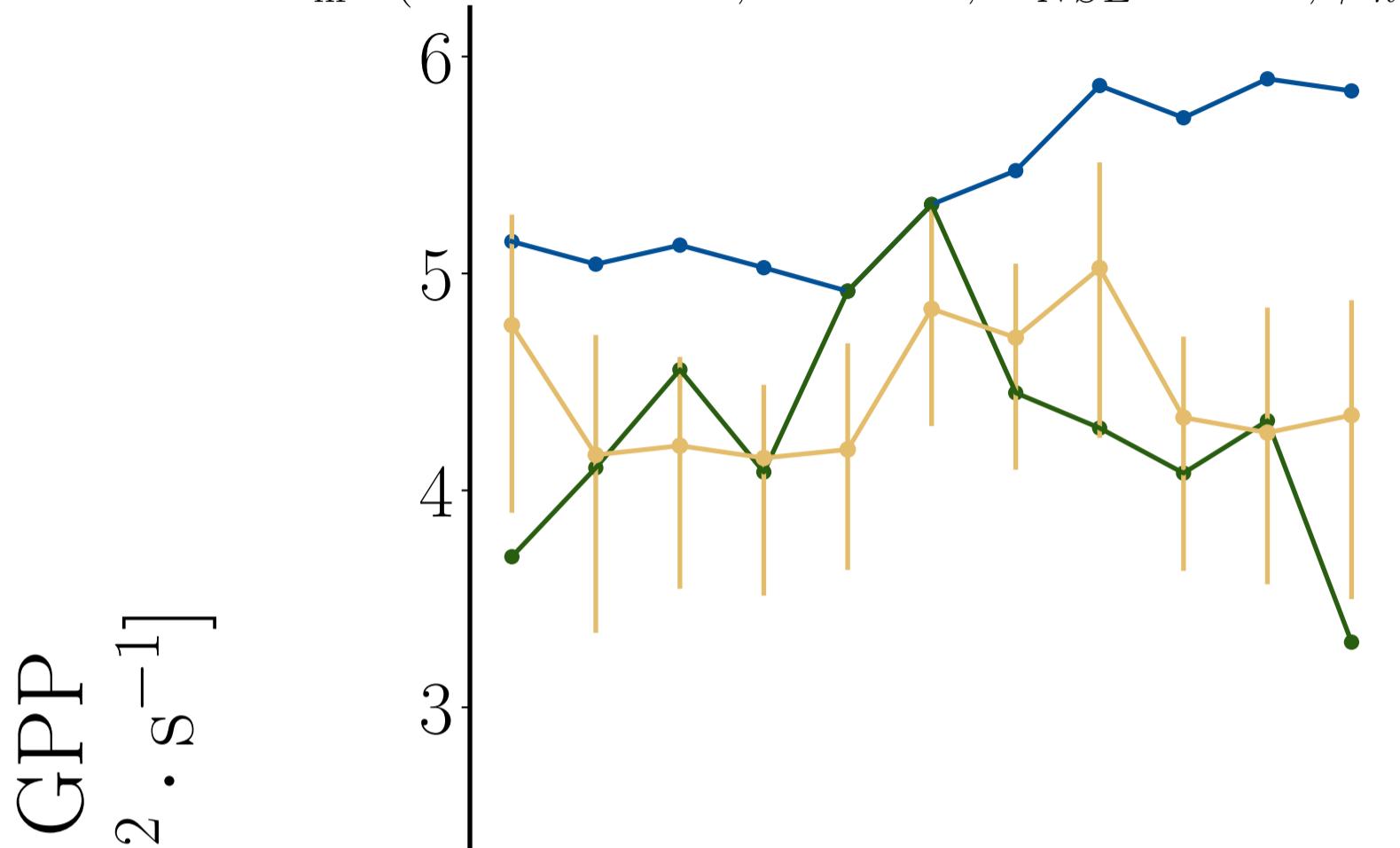


# Mead - irrigated continuous maize site (Site ID: US-Ne1 PFT: CRO KG: Dfa)

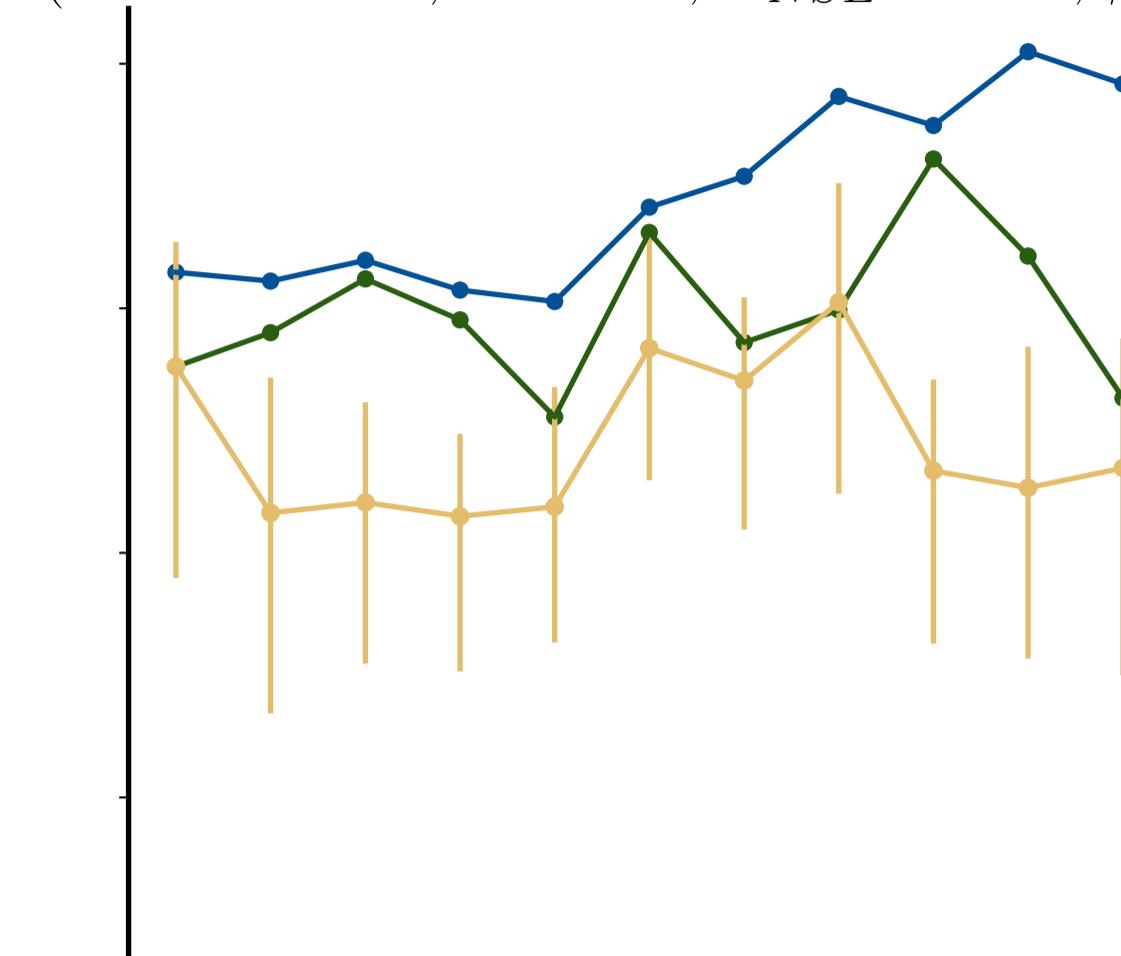
**(a) Per site-year parameterization**

$P_{hr}^W$ : (NSE: -2.808,  $r$ : 0.148,  $\alpha_{NSE}$ : 1.733,  $\beta_n$ : -0.564)  
 $P_{hr}$ : (NSE: -10.414,  $r$ : 0.345,  $\alpha_{NSE}$ : 1.187,  $\beta_n$ : 3.135)



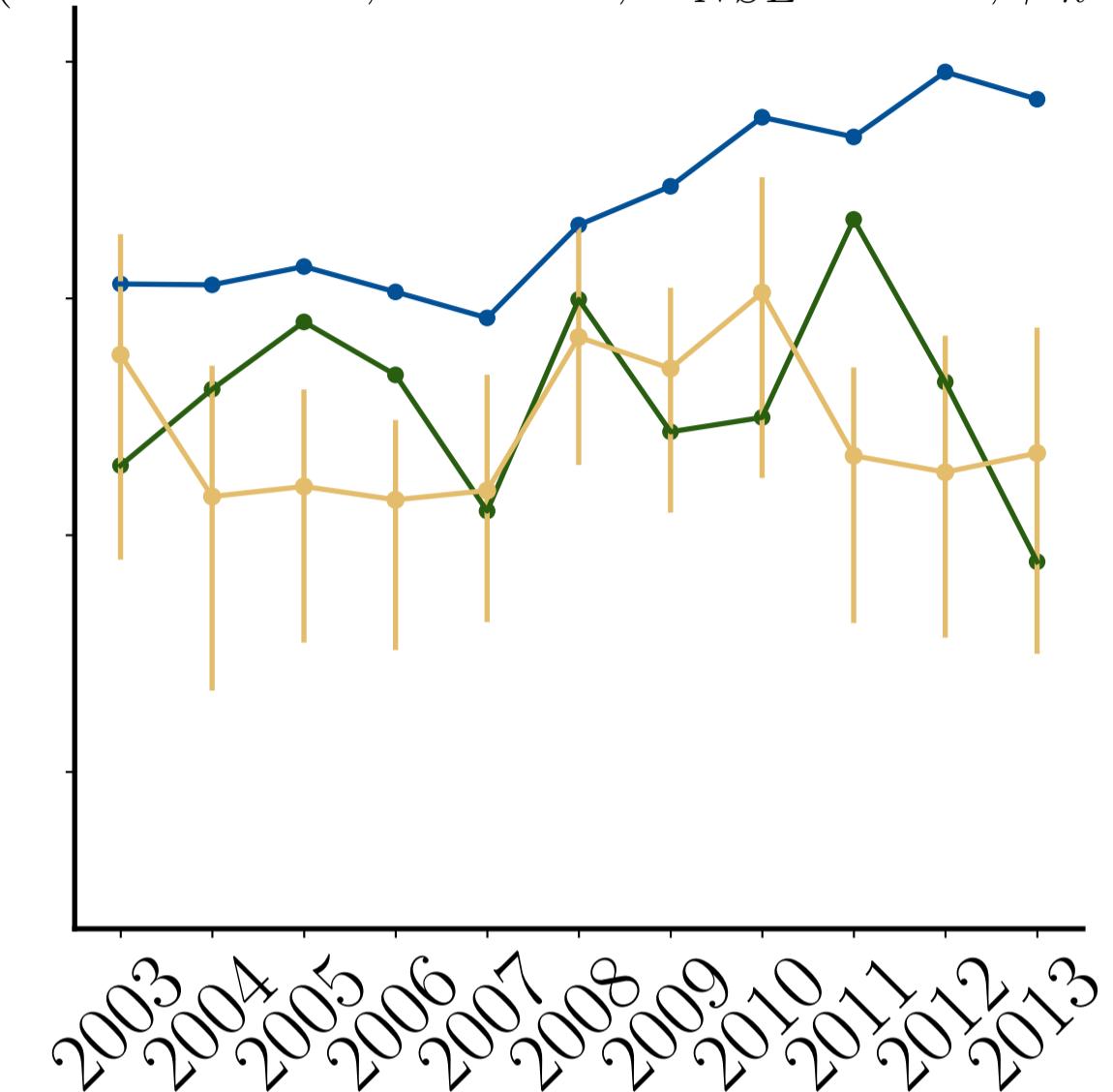
**(b) Per site parameterization using Cost<sup>IAV</sup>**

$P_{hr}^W$ : (NSE: -4.012,  $r$ : 0.066,  $\alpha_{NSE}$ : 0.974,  $\beta_n$ : 1.787)  
 $P_{hr}$ : (NSE: -11.964,  $r$ : 0.286,  $\alpha_{NSE}$ : 1.199,  $\beta_n$ : 3.349)



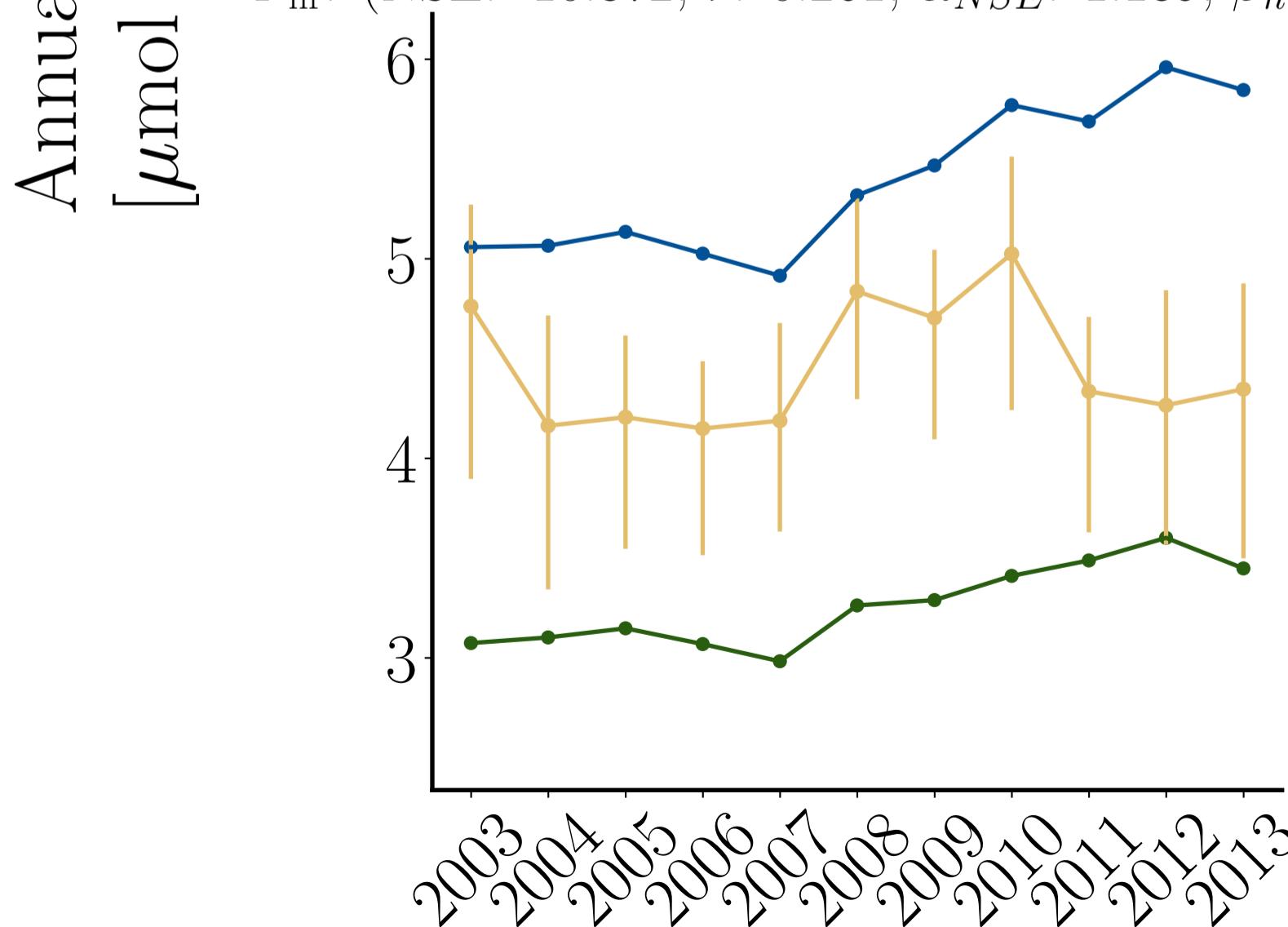
**(c) Per site parameterization**

$P_{hr}^W$ : (NSE: -1.92,  $r$ : -0.025,  $\alpha_{NSE}$ : 1.295,  $\beta_n$ : 0.424)  
 $P_{hr}$ : (NSE: -10.324,  $r$ : 0.261,  $\alpha_{NSE}$ : 1.184,  $\beta_n$ : 3.089)



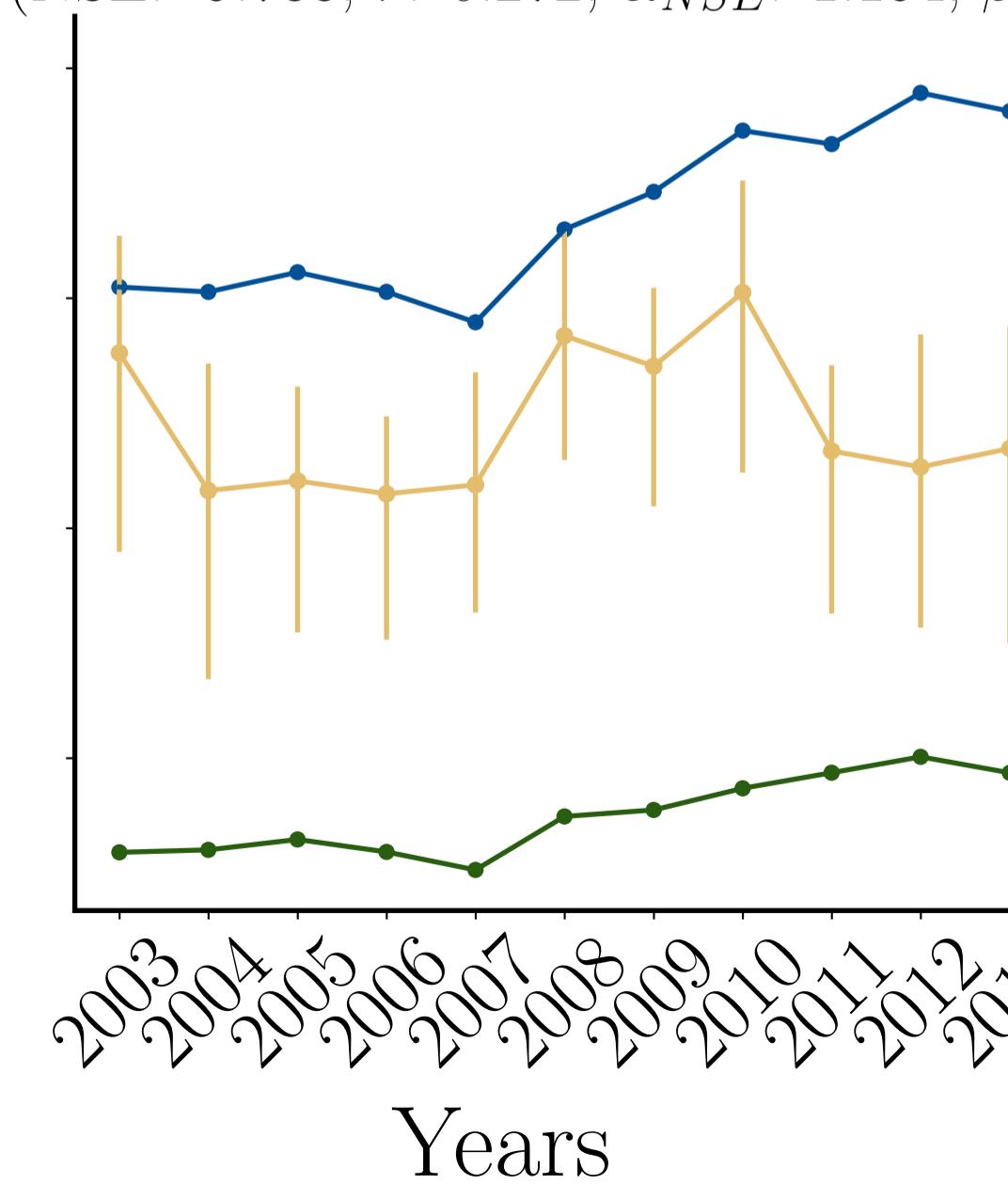
**(d) Per PFT parameterization**

$P_{hr}^W$ : (NSE: -15.763,  $r$ : 0.204,  $\alpha_{NSE}$ : 0.643,  $\beta_n$ : -3.951)  
 $P_{hr}$ : (NSE: -10.372,  $r$ : 0.261,  $\alpha_{NSE}$ : 1.189,  $\beta_n$ : 3.095)



**(e) Global parameterization**

$P_{hr}^W$ : (NSE: -32.088,  $r$ : 0.211,  $\alpha_{NSE}$ : 0.537,  $\beta_n$ : -5.659)  
 $P_{hr}$ : (NSE: -9.783,  $r$ : 0.272,  $\alpha_{NSE}$ : 1.154,  $\beta_n$ : 3.013)



- $GPP_{EC}$
- $GPP_{sim}$  by  $P_{hr}$  model
- $GPP_{sim}$  by  $P_W_{hr}$  model