

A Supplementary File for “Analyzing Adaptive Parameter Landscapes in Parameter Adaptation Methods for Differential Evolution”

ABSTRACT

This paper is a supplementary file for “Analyzing Adaptive Parameter Landscapes in Parameter Adaptation Methods for Differential Evolution”. **Note that missing figures are not typos. See Section 5.1 in the main paper for the reason why some figures are missing.**

ACM Reference Format:

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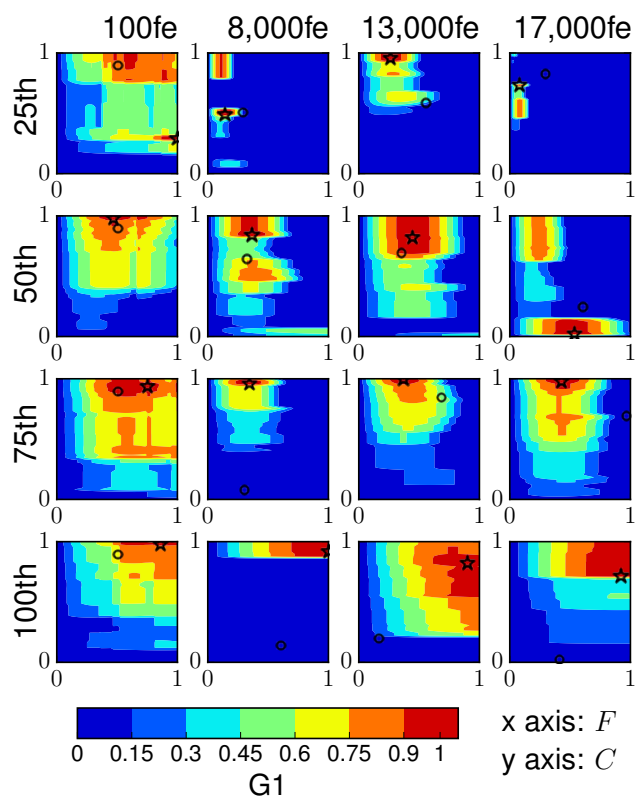


Figure S.1: Contour maps of adaptive parameter landscapes in P-jDE on f_1 with $d = 20$.

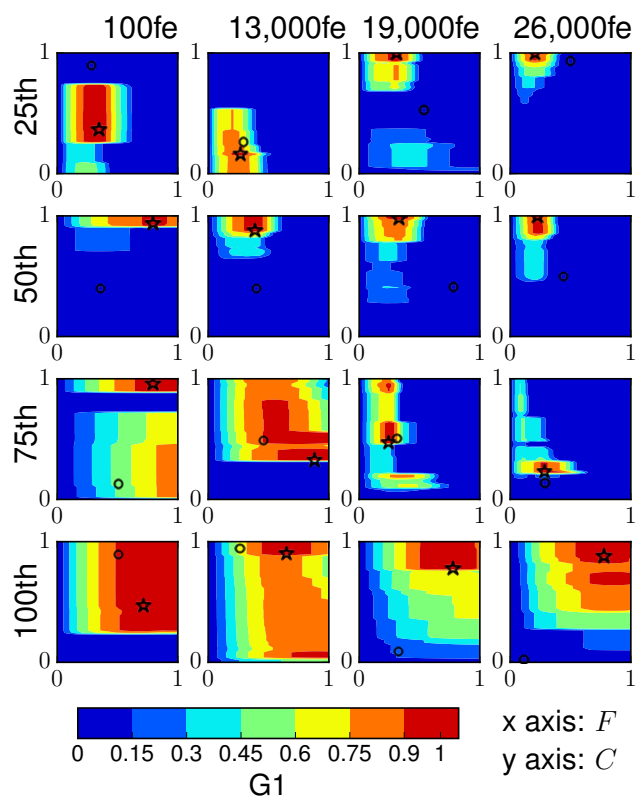


Figure S.2: Contour maps of adaptive parameter landscapes in P-jDE on f_2 with $d = 20$.

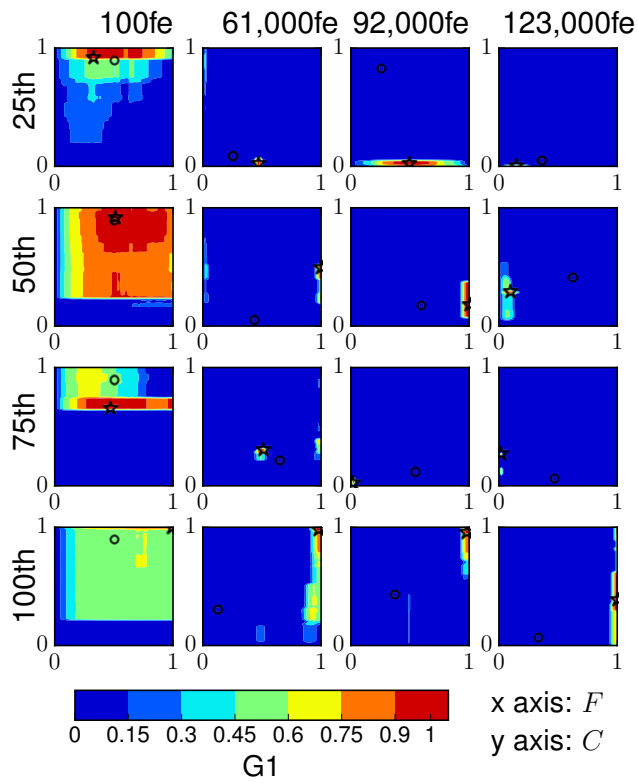


Figure S.3: Contour maps of adaptive parameter landscapes in P-jDE on f_3 with $d = 20$.

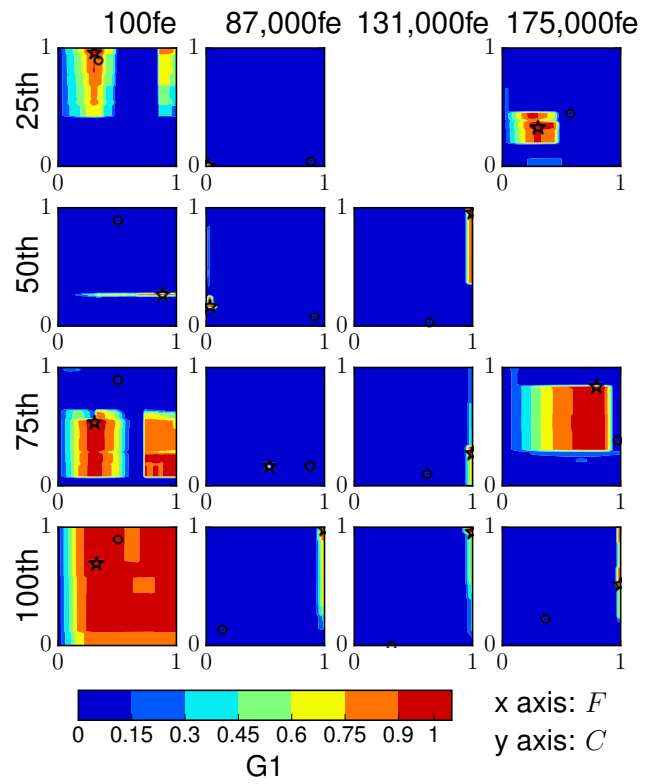


Figure S.4: Contour maps of adaptive parameter landscapes in P-jDE on f_4 with $d = 20$.

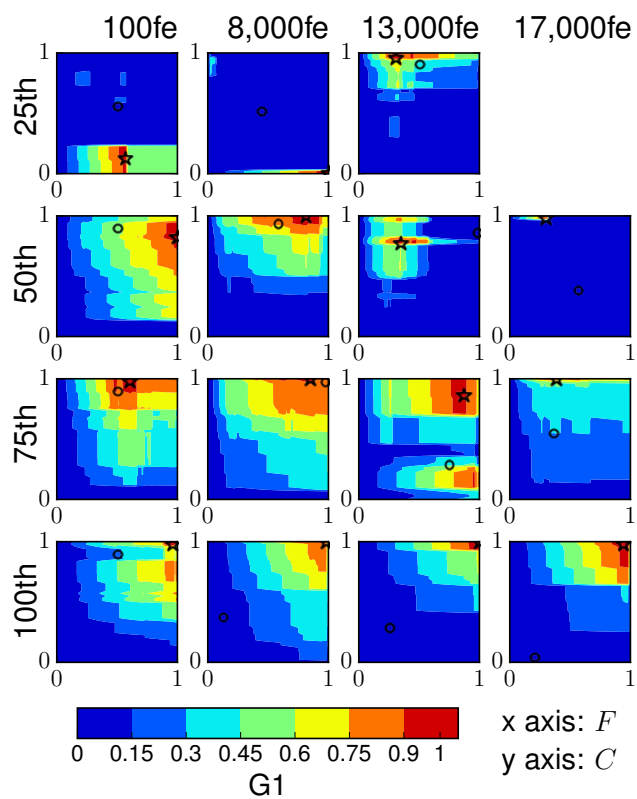


Figure S.5: Contour maps of adaptive parameter landscapes in P-jDE on f_5 with $d = 20$.

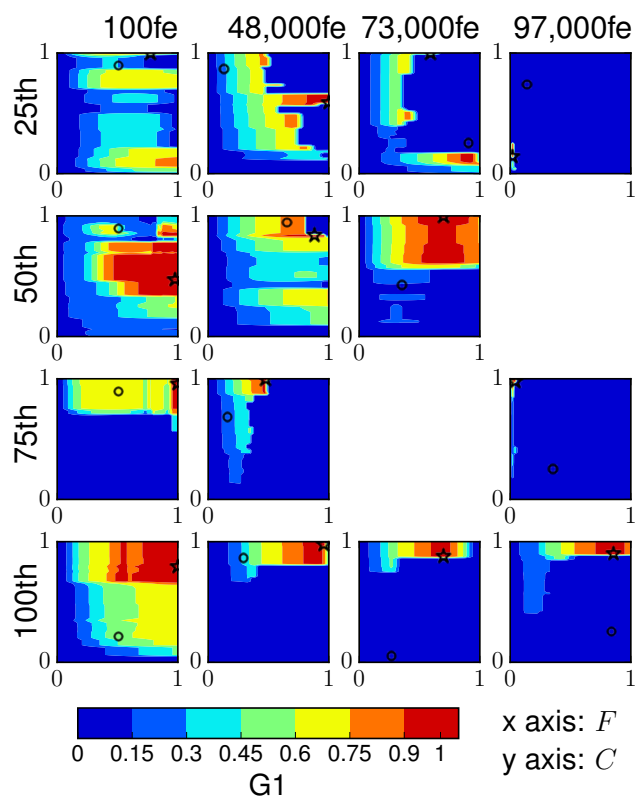


Figure S.6: Contour maps of adaptive parameter landscapes in P-jDE on f_6 with $d = 20$.

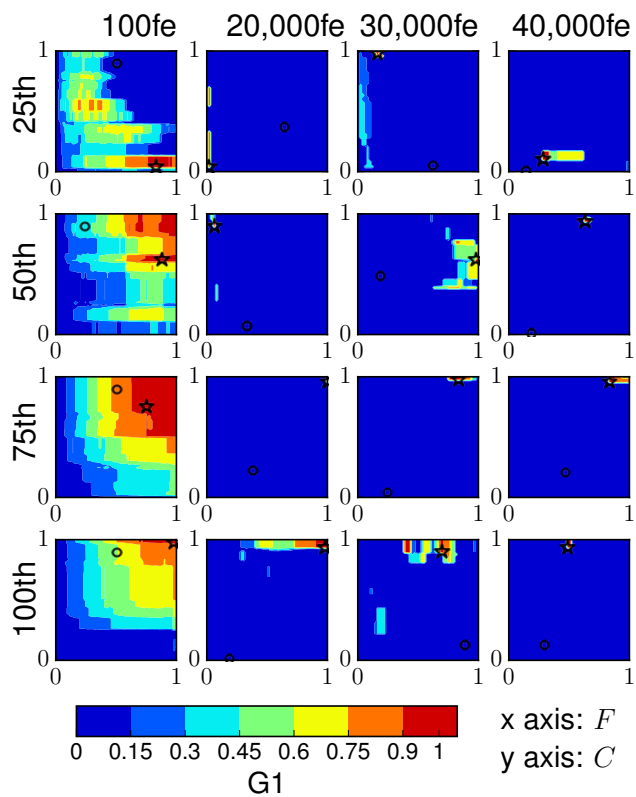


Figure S.7: Contour maps of adaptive parameter landscapes in P-jDE on f_7 with $d = 20$.

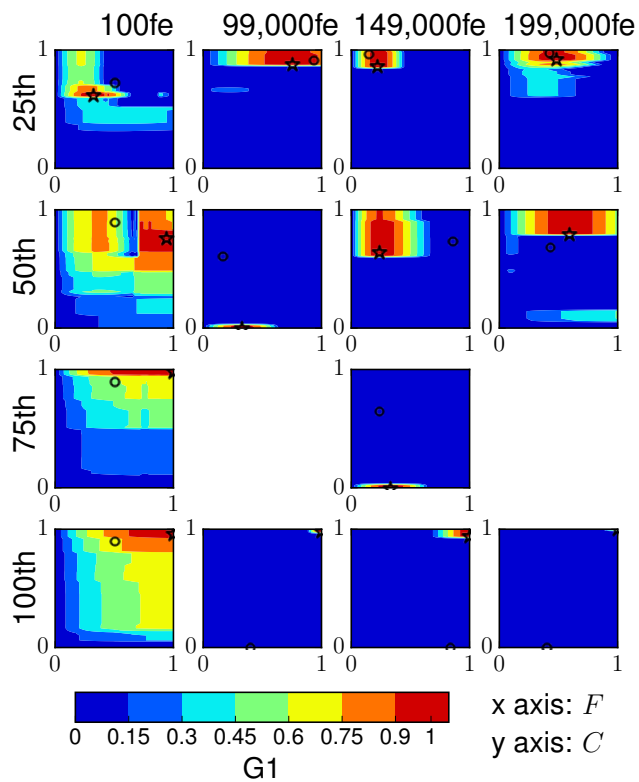


Figure S.8: Contour maps of adaptive parameter landscapes in P-jDE on f_8 with $d = 20$.

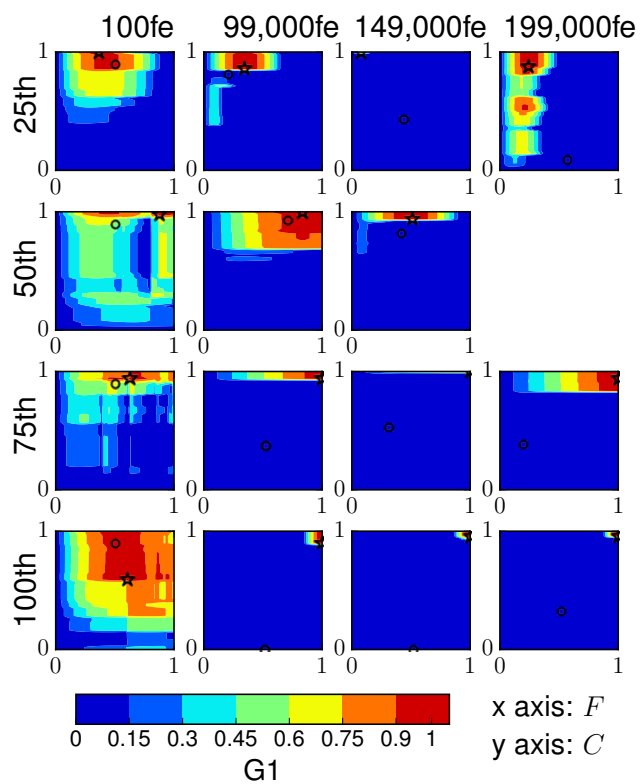


Figure S.9: Contour maps of adaptive parameter landscapes in P-jDE on f_9 with $d = 20$.

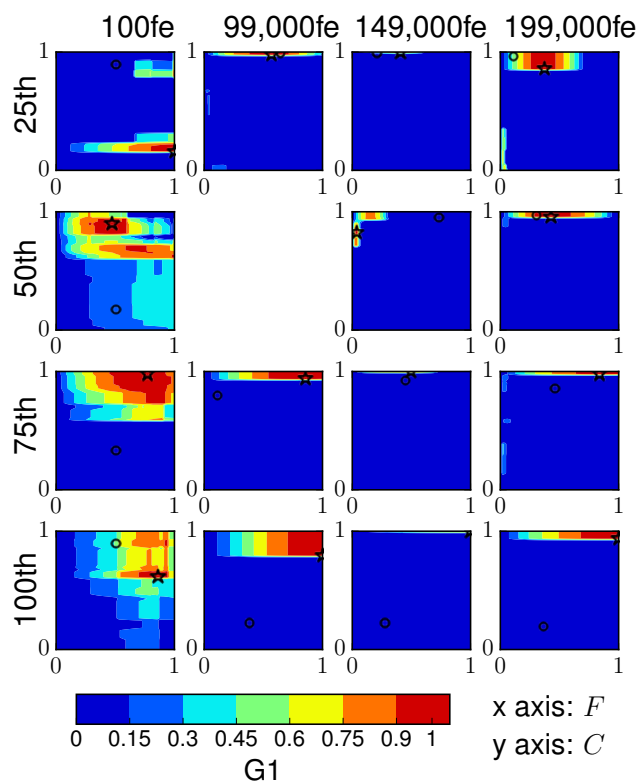


Figure S.10: Contour maps of adaptive parameter landscapes in P-jDE on f_{10} with $d = 20$.

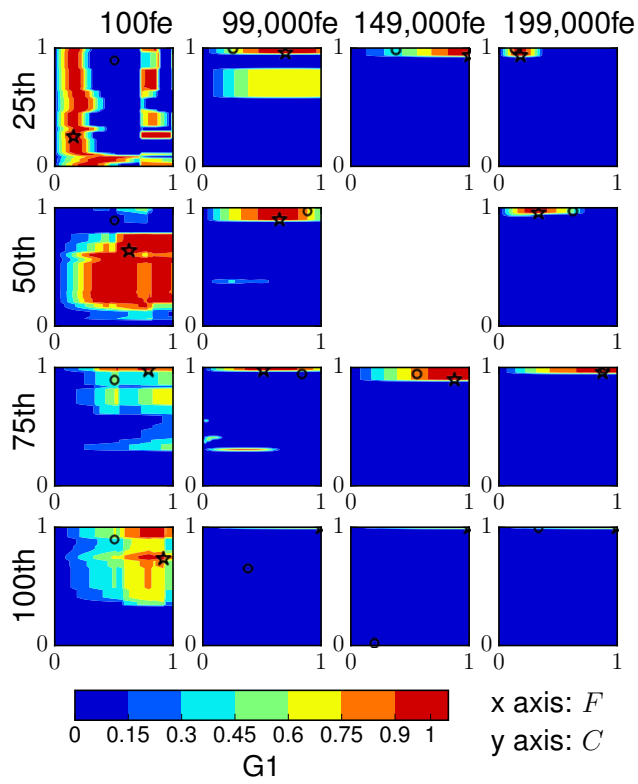


Figure S.11: Contour maps of adaptive parameter landscapes in P-jDE on f_{11} with $d = 20$.

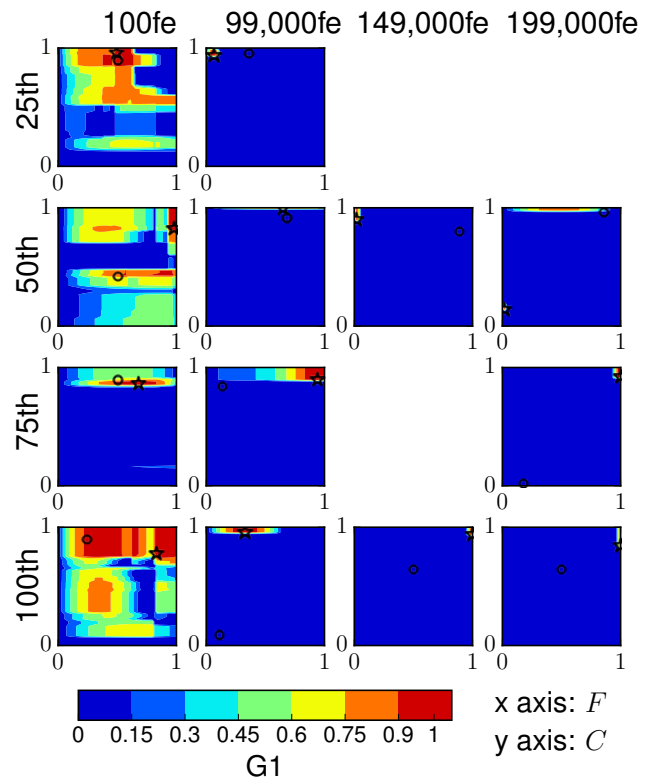


Figure S.12: Contour maps of adaptive parameter landscapes in P-jDE on f_{12} with $d = 20$.

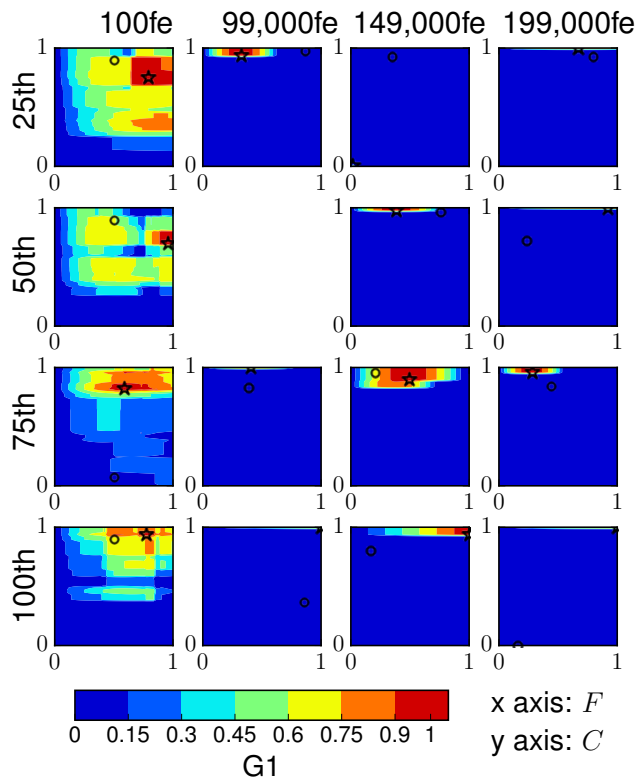


Figure S.13: Contour maps of adaptive parameter landscapes in P-jDE on f_{13} with $d = 20$.

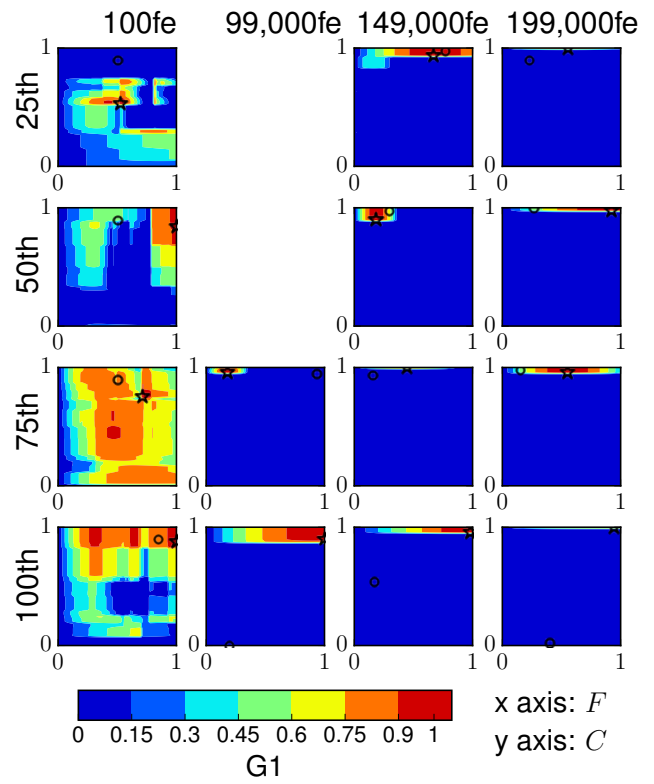


Figure S.14: Contour maps of adaptive parameter landscapes in P-jDE on f_{14} with $d = 20$.

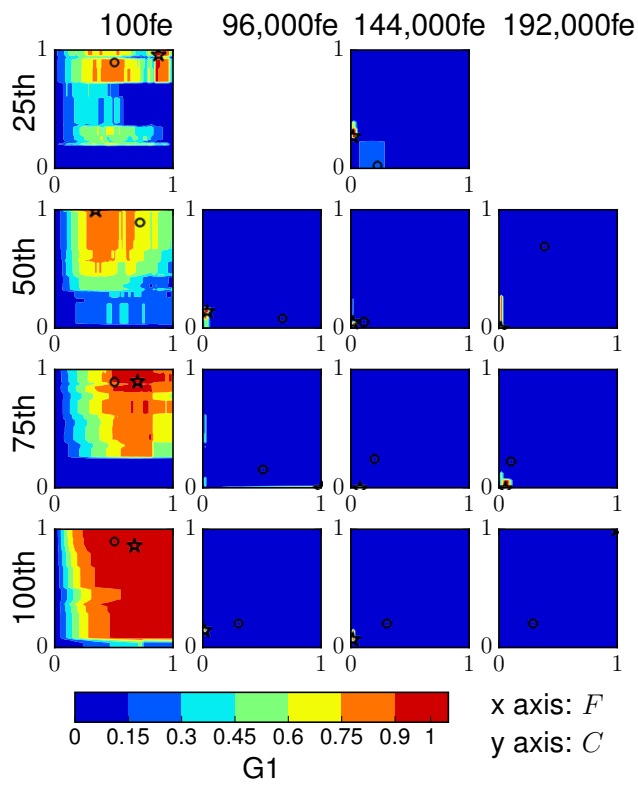


Figure S.15: Contour maps of adaptive parameter landscapes in P-jDE on f_{15} with $d = 20$.

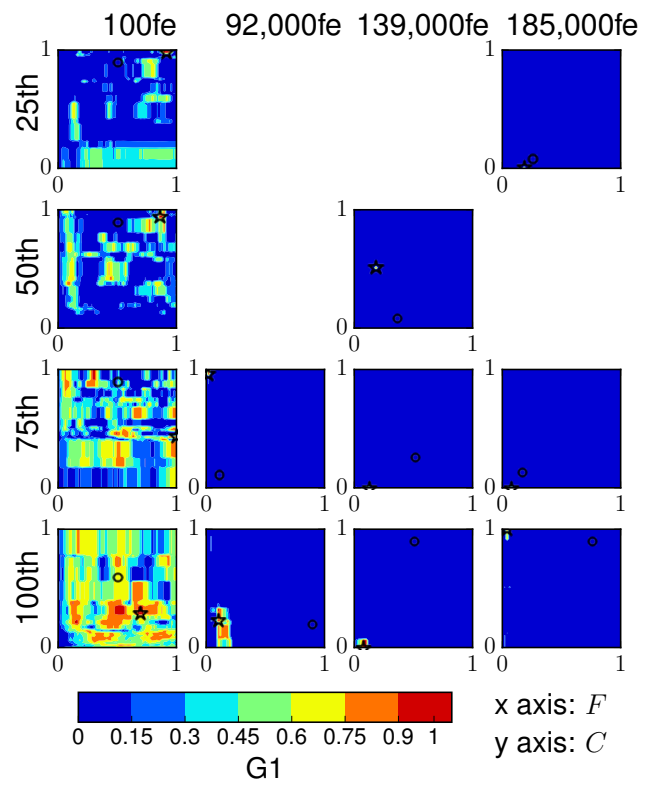


Figure S.16: Contour maps of adaptive parameter landscapes in P-jDE on f_{16} with $d = 20$.

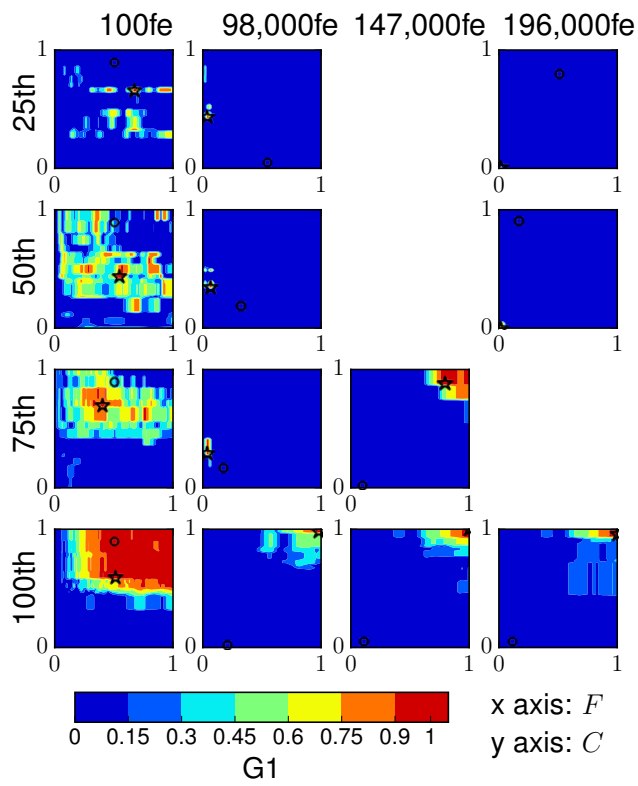


Figure S.17: Contour maps of adaptive parameter landscapes in P-jDE on f_{17} with $d = 20$.

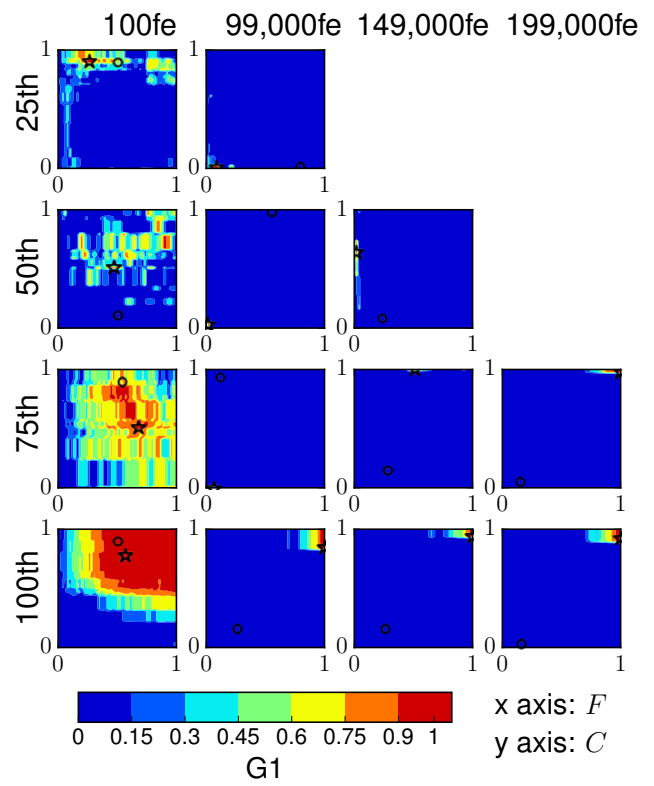


Figure S.18: Contour maps of adaptive parameter landscapes in P-jDE on f_{18} with $d = 20$.

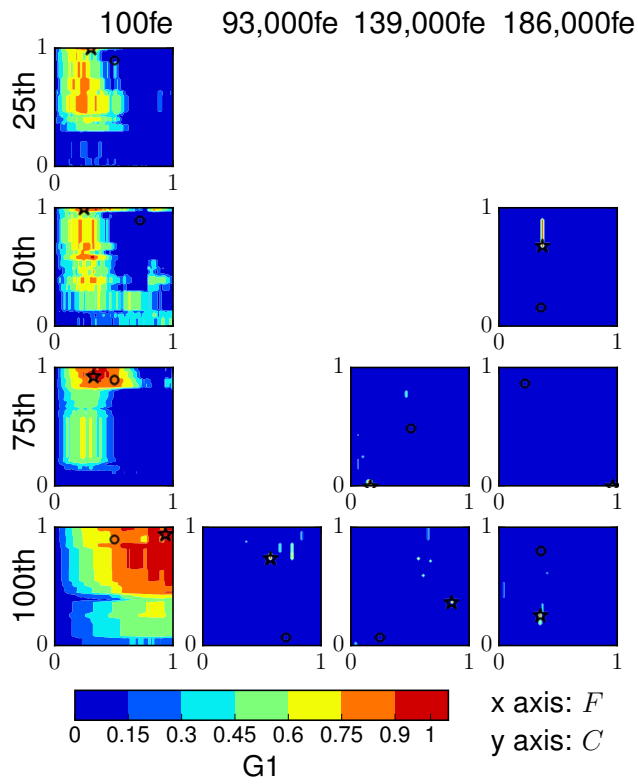


Figure S.19: Contour maps of adaptive parameter landscapes in P-jDE on f_{19} with $d = 20$.

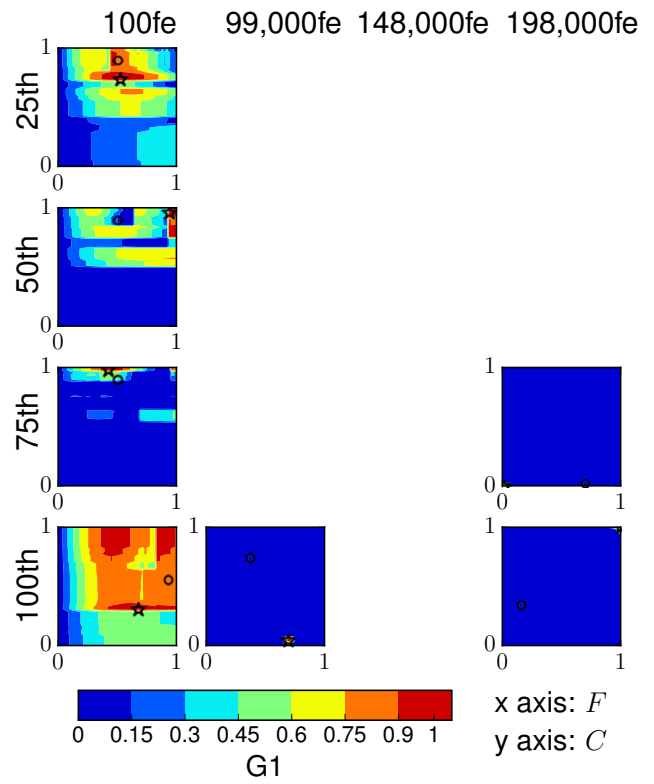


Figure S.20: Contour maps of adaptive parameter landscapes in P-jDE on f_{20} with $d = 20$.

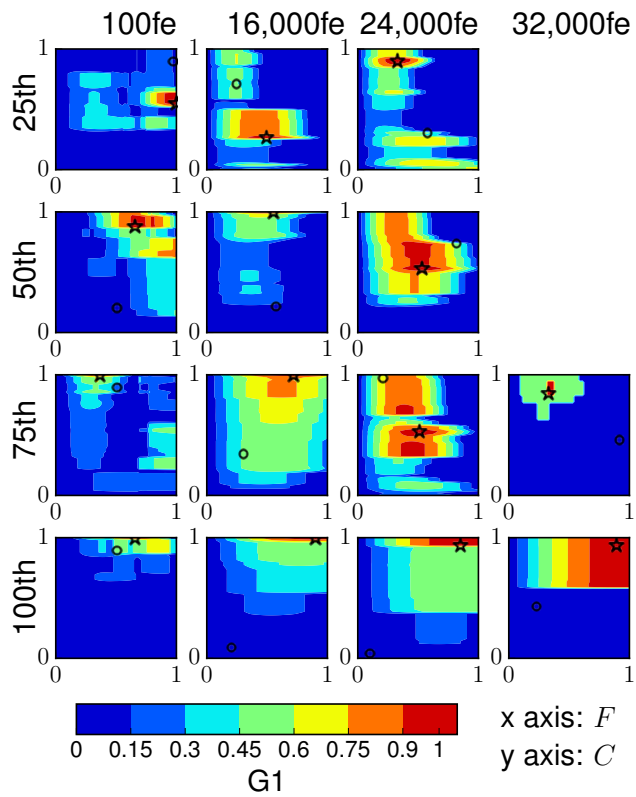


Figure S.21: Contour maps of adaptive parameter landscapes in P-jDE on f_{21} with $d = 20$.

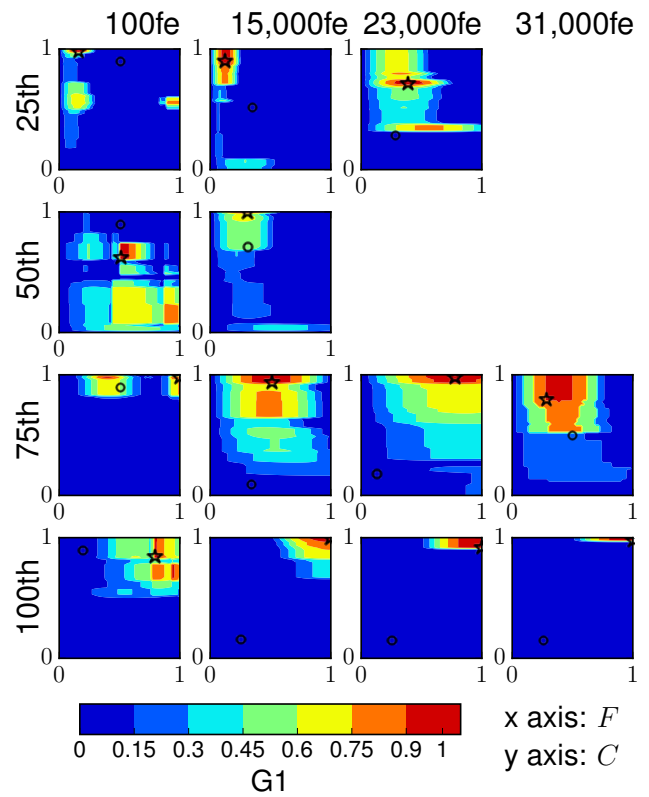


Figure S.22: Contour maps of adaptive parameter landscapes in P-jDE on f_{22} with $d = 20$.

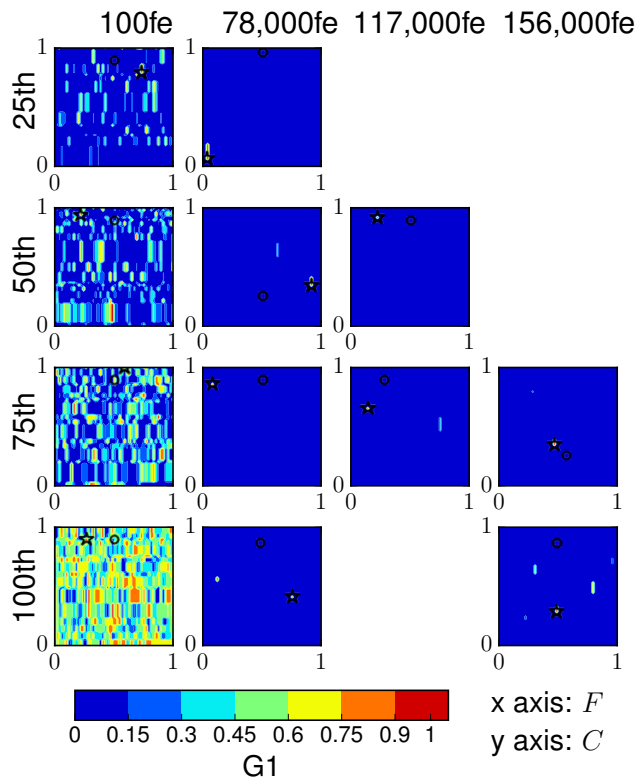


Figure S.23: Contour maps of adaptive parameter landscapes in P-jDE on f_{23} with $d = 20$.

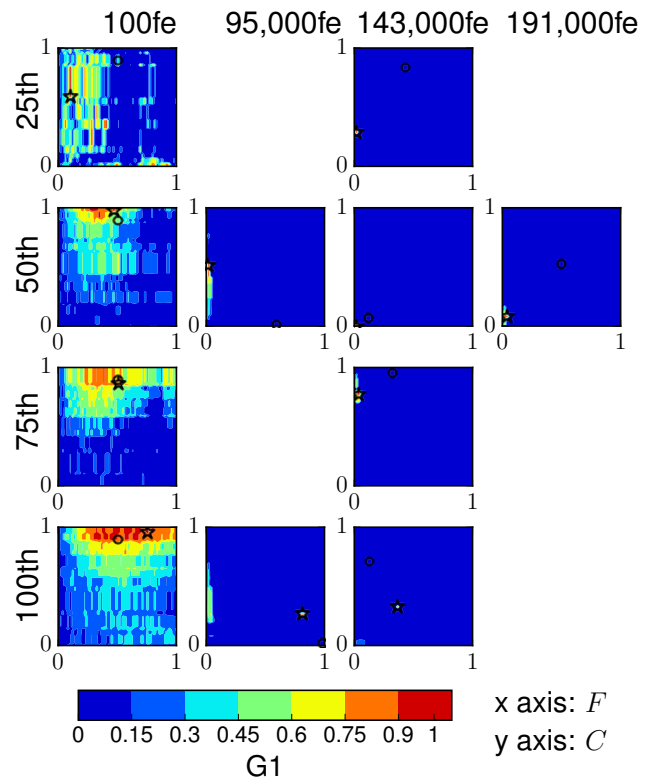


Figure S.24: Contour maps of adaptive parameter landscapes in P-jDE on f_{24} with $d = 20$.

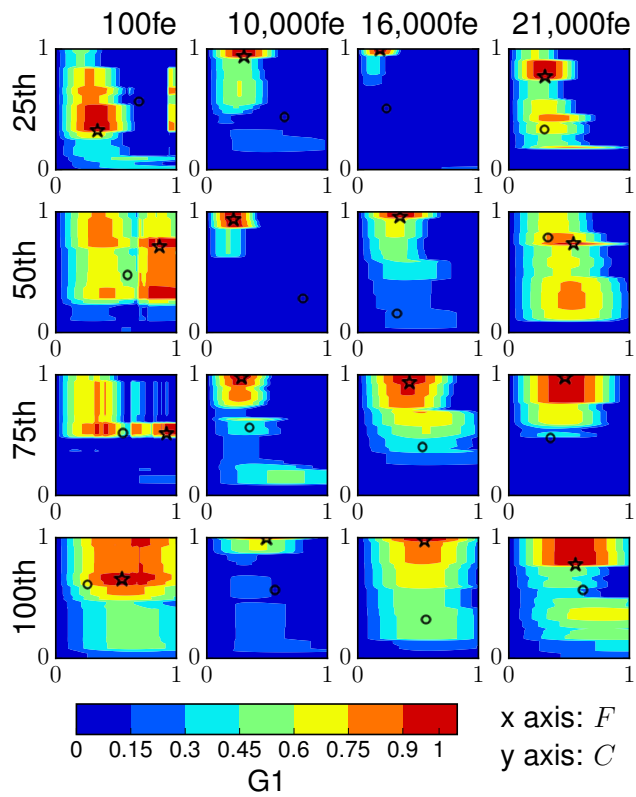


Figure S.25: Contour maps of adaptive parameter landscapes in P-JADE on f_1 with $d = 20$.

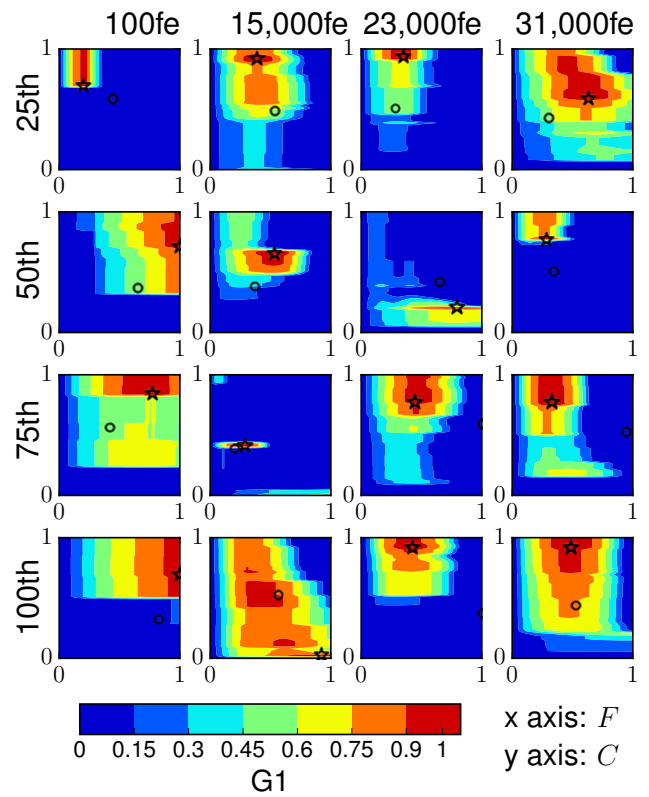


Figure S.26: Contour maps of adaptive parameter landscapes in P-JADE on f_2 with $d = 20$.

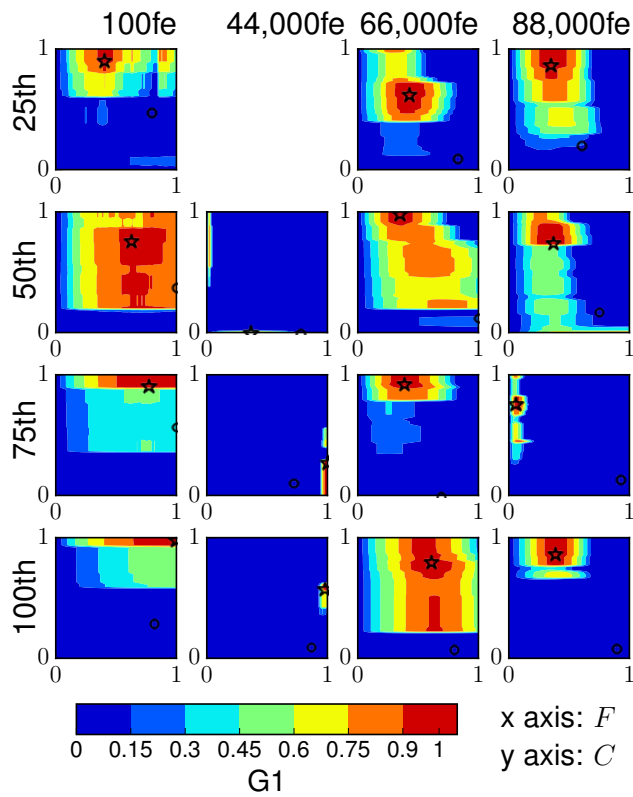


Figure S.27: Contour maps of adaptive parameter landscapes in P-JADE on f_3 with $d = 20$.

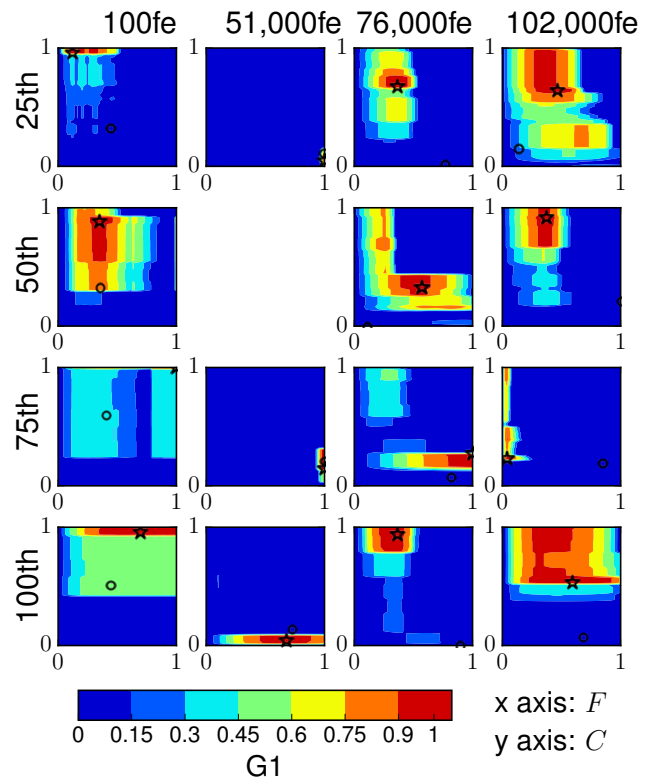


Figure S.28: Contour maps of adaptive parameter landscapes in P-JADE on f_4 with $d = 20$.

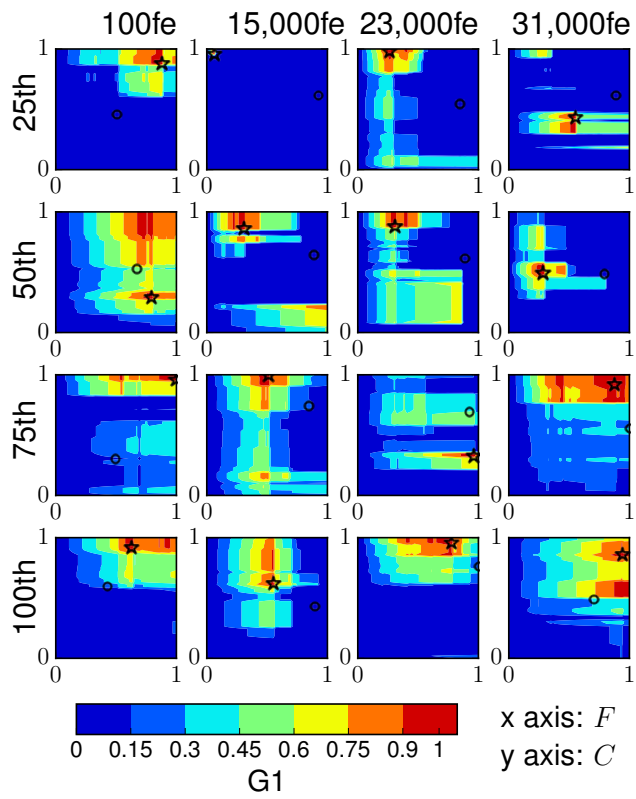


Figure S.29: Contour maps of adaptive parameter landscapes in P-JADE on f_5 with $d = 20$.

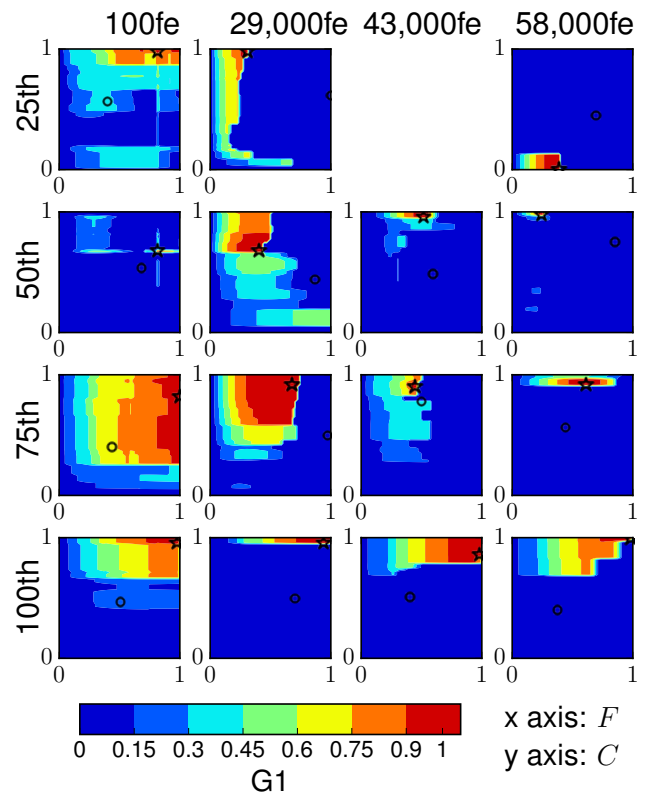


Figure S.30: Contour maps of adaptive parameter landscapes in P-JADE on f_6 with $d = 20$.

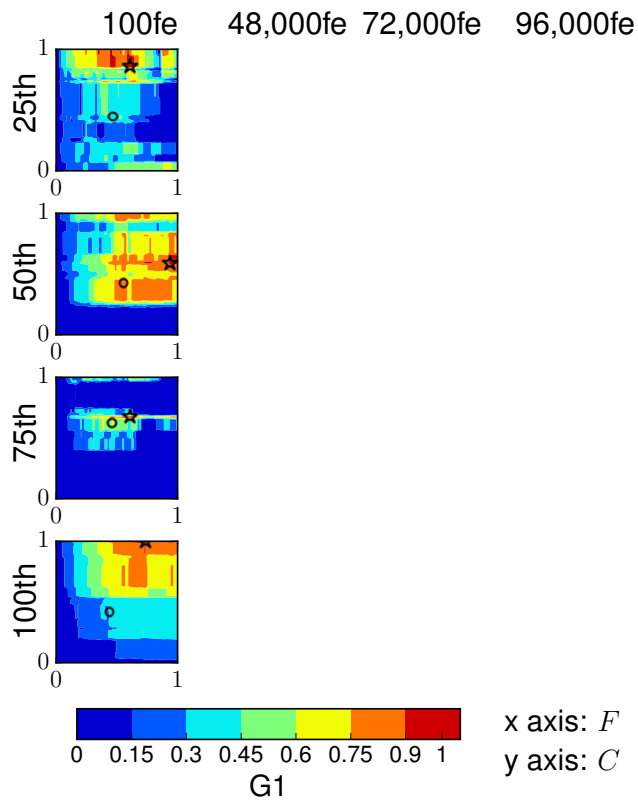


Figure S.31: Contour maps of adaptive parameter landscapes in P-JADE on f_7 with $d = 20$.

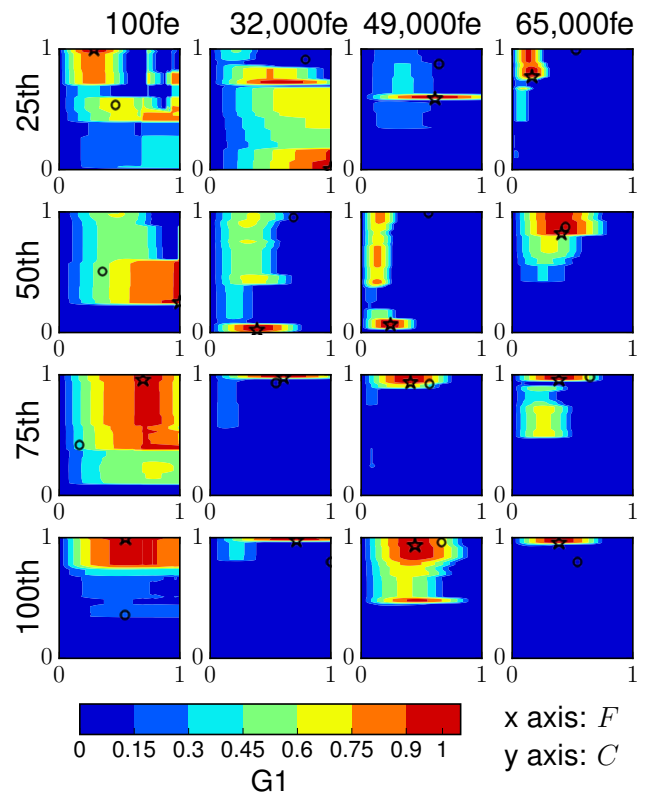


Figure S.32: Contour maps of adaptive parameter landscapes in P-JADE on f_8 with $d = 20$.

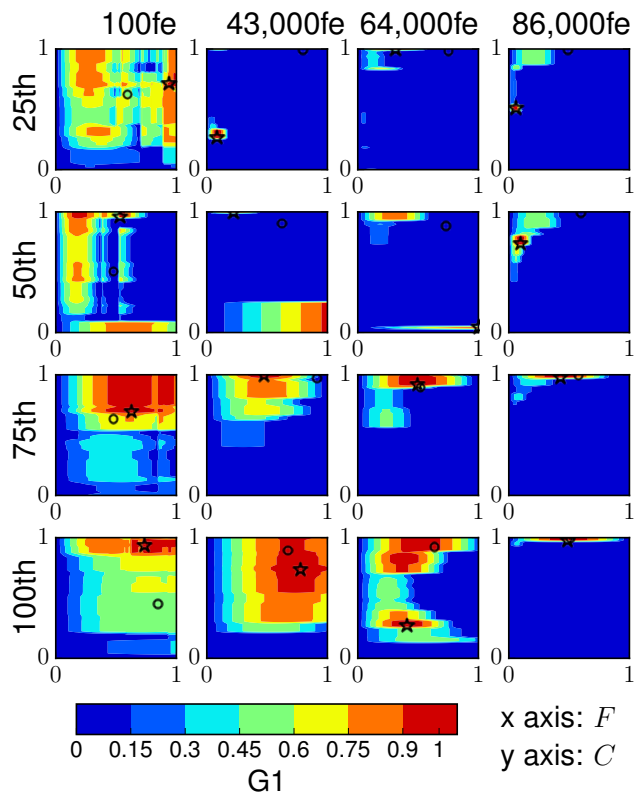


Figure S.33: Contour maps of adaptive parameter landscapes in P-JADE on f_9 with $d = 20$.

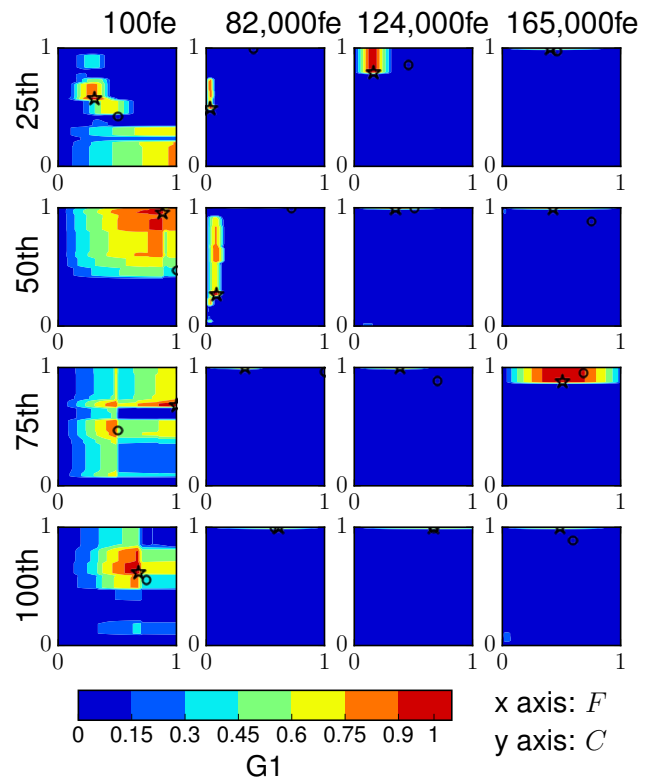


Figure S.34: Contour maps of adaptive parameter landscapes in P-JADE on f_{10} with $d = 20$.

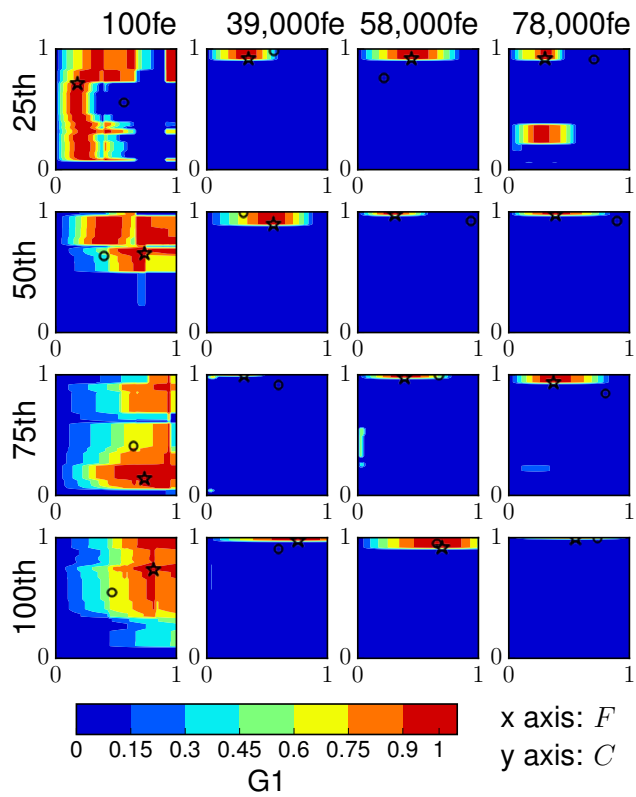


Figure S.35: Contour maps of adaptive parameter landscapes in P-JADE on f_{11} with $d = 20$.

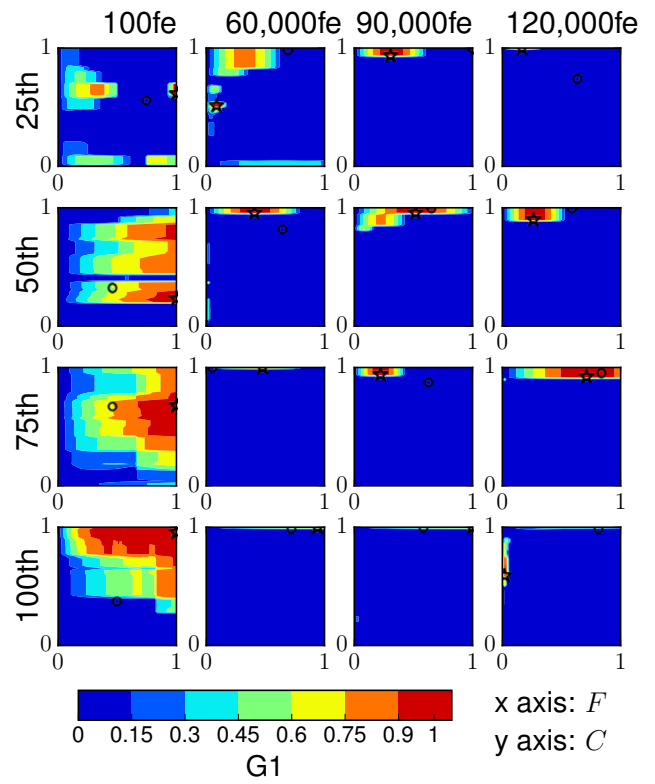


Figure S.36: Contour maps of adaptive parameter landscapes in P-JADE on f_{12} with $d = 20$.

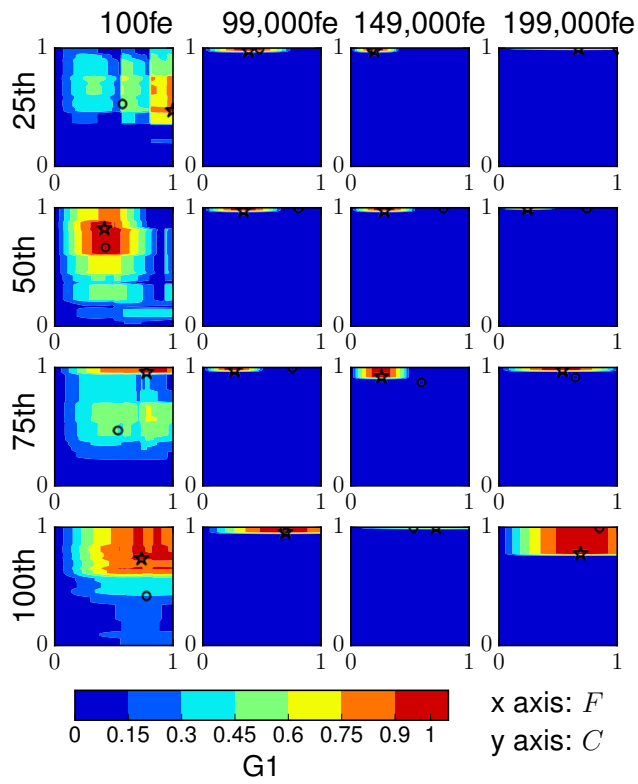


Figure S.37: Contour maps of adaptive parameter landscapes in P-JADE on f_{13} with $d = 20$.

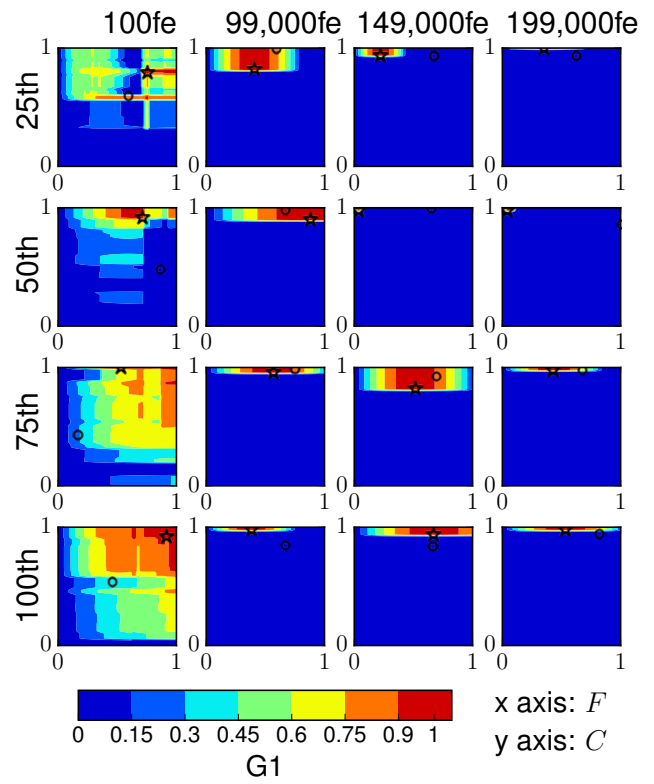


Figure S.38: Contour maps of adaptive parameter landscapes in P-JADE on f_{14} with $d = 20$.

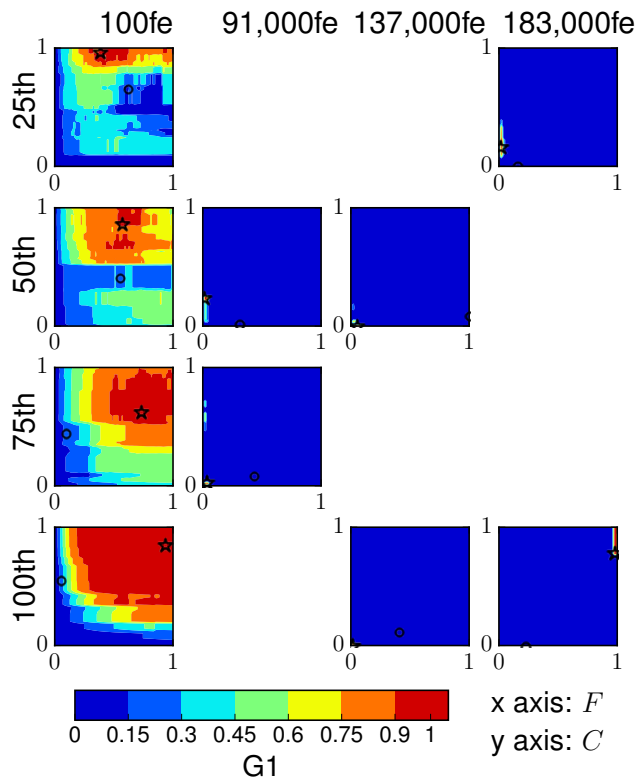


Figure S.39: Contour maps of adaptive parameter landscapes in P-JADE on f_{15} with $d = 20$.

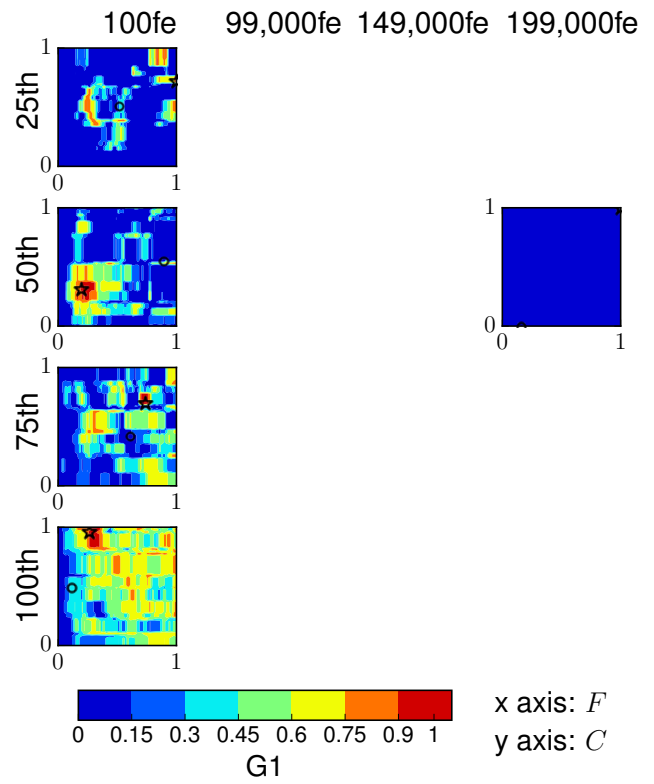


Figure S.40: Contour maps of adaptive parameter landscapes in P-JADE on f_{16} with $d = 20$.

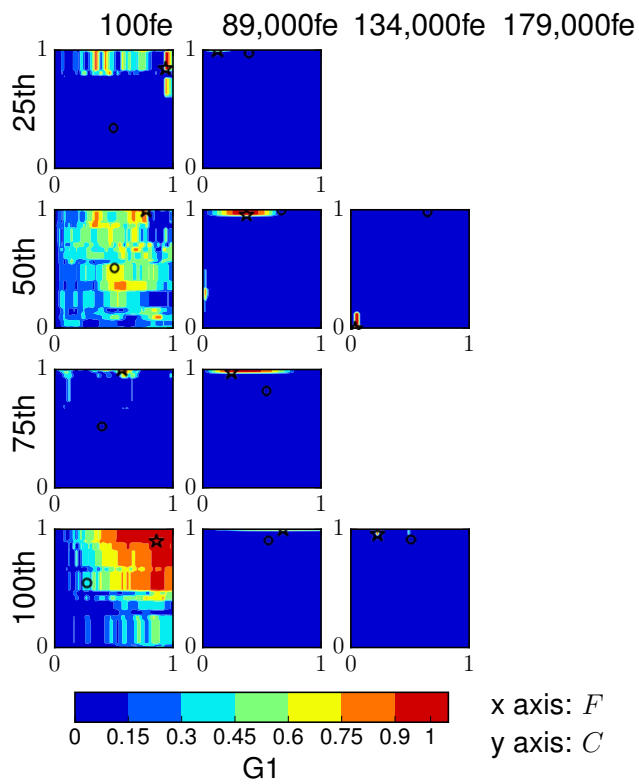


Figure S.41: Contour maps of adaptive parameter landscapes in P-JADE on f_{17} with $d = 20$.

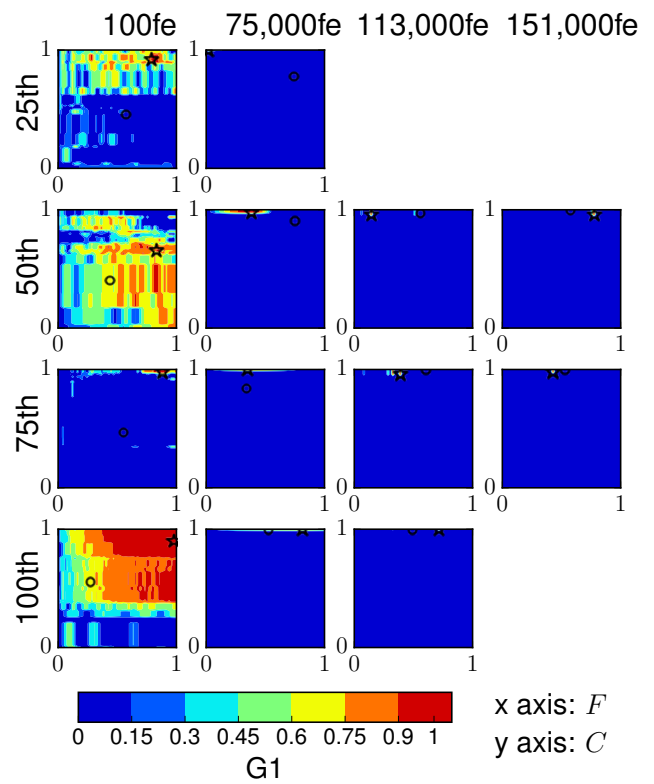


Figure S.42: Contour maps of adaptive parameter landscapes in P-JADE on f_{18} with $d = 20$.

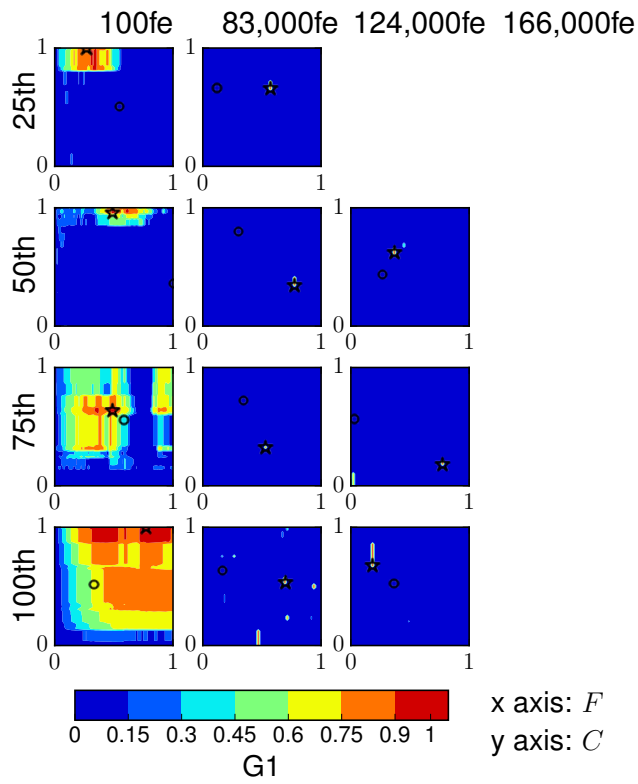


Figure S.43: Contour maps of adaptive parameter landscapes in P-JADE on f_{19} with $d = 20$.

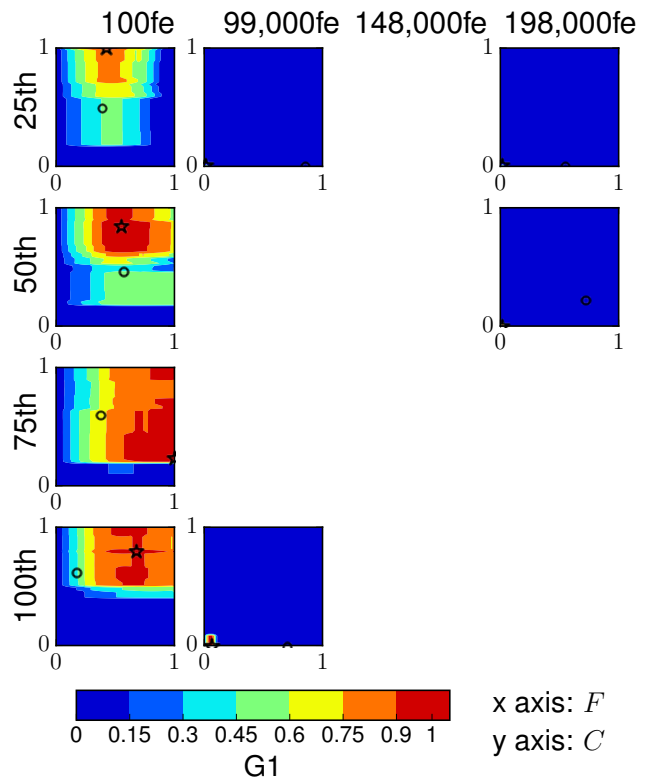


Figure S.44: Contour maps of adaptive parameter landscapes in P-JADE on f_{20} with $d = 20$.

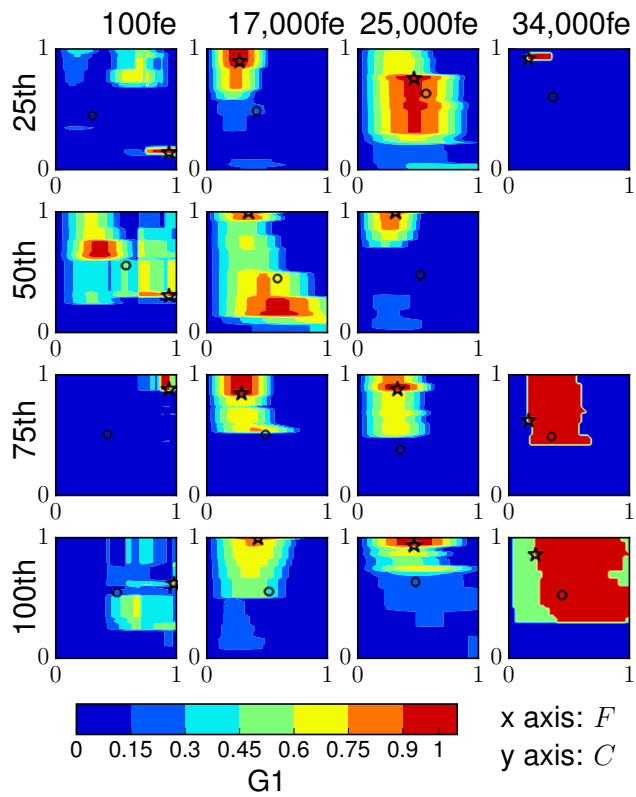


Figure S.45: Contour maps of adaptive parameter landscapes in P-JADE on f_{21} with $d = 20$.

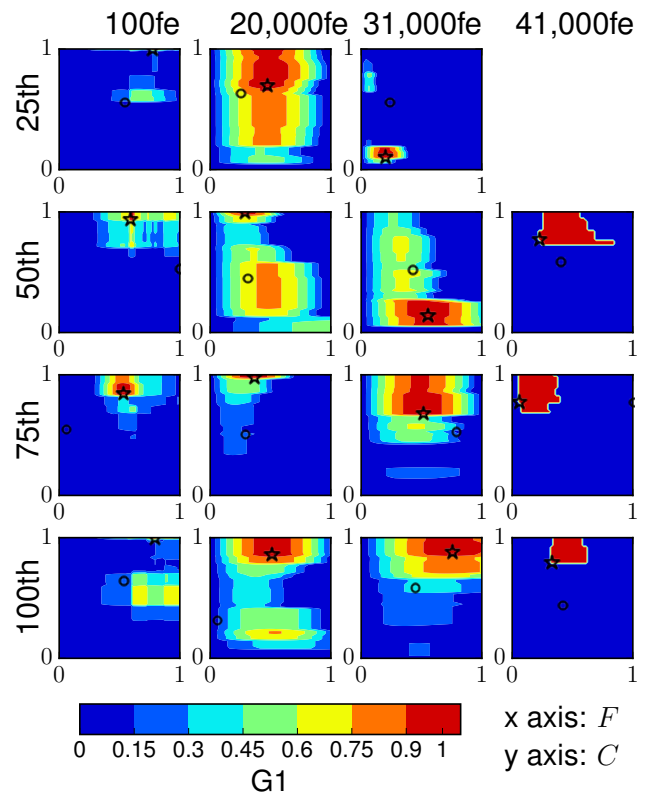


Figure S.46: Contour maps of adaptive parameter landscapes in P-JADE on f_{22} with $d = 20$.

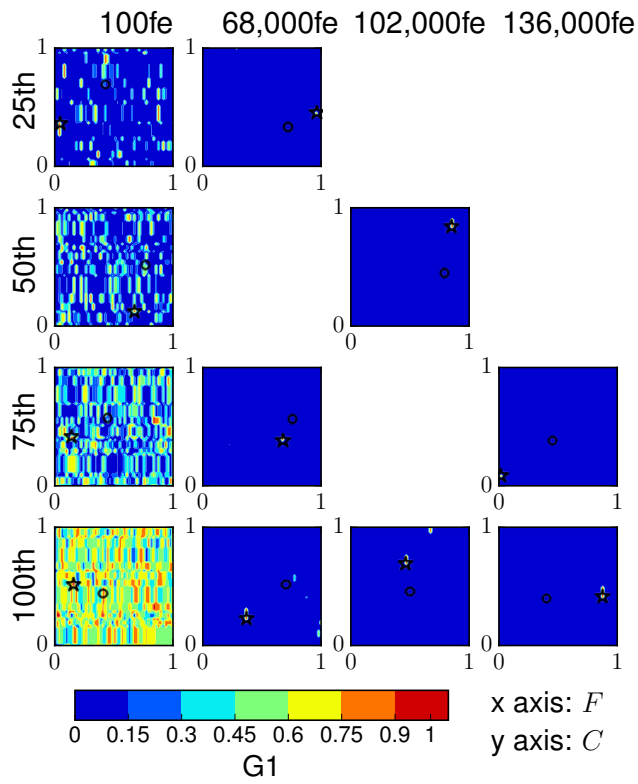


Figure S.47: Contour maps of adaptive parameter landscapes in P-JADE on f_{23} with $d = 20$.

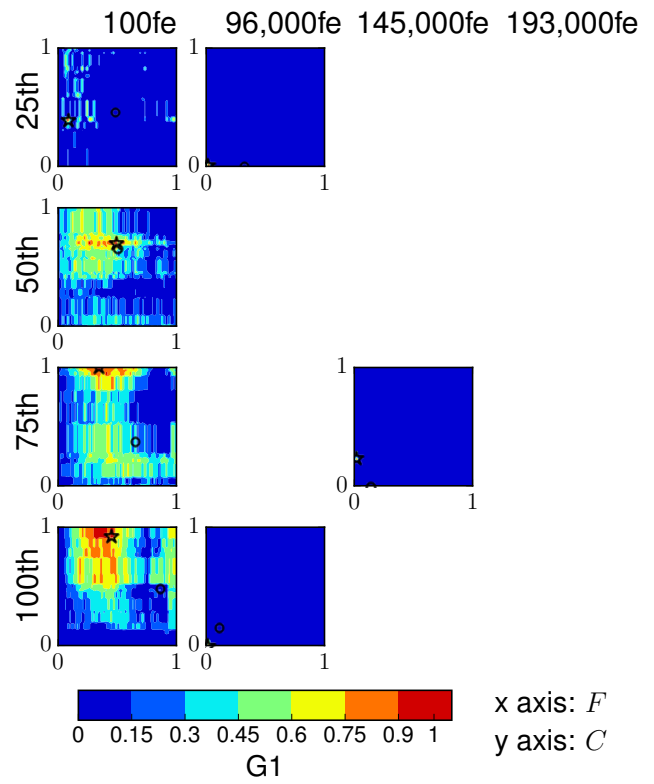


Figure S.48: Contour maps of adaptive parameter landscapes in P-JADE on f_{24} with $d = 20$.

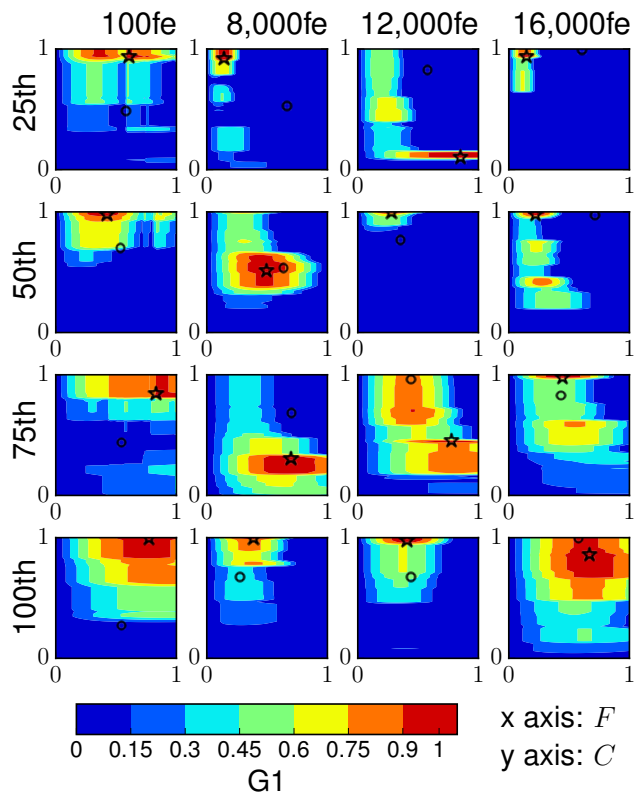


Figure S.49: Contour maps of adaptive parameter landscapes in P-SHADE on f_1 with $d = 20$.

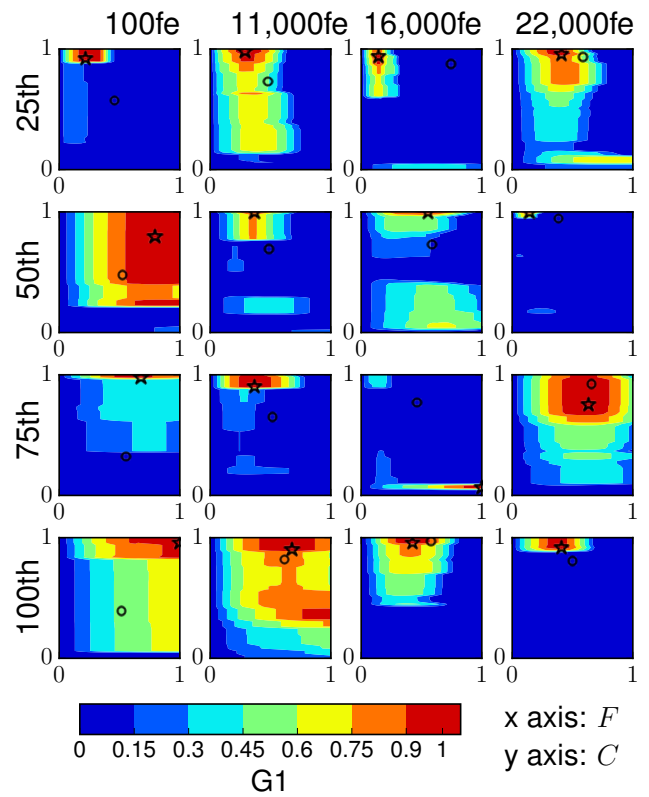


Figure S.50: Contour maps of adaptive parameter landscapes in P-SHADE on f_2 with $d = 20$.

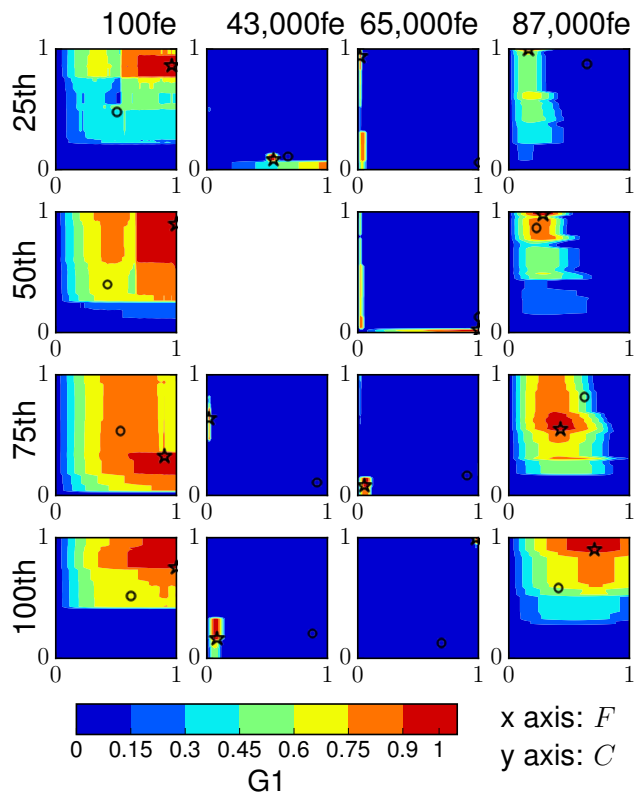


Figure S.51: Contour maps of adaptive parameter landscapes in P-SHADE on f_3 with $d = 20$.

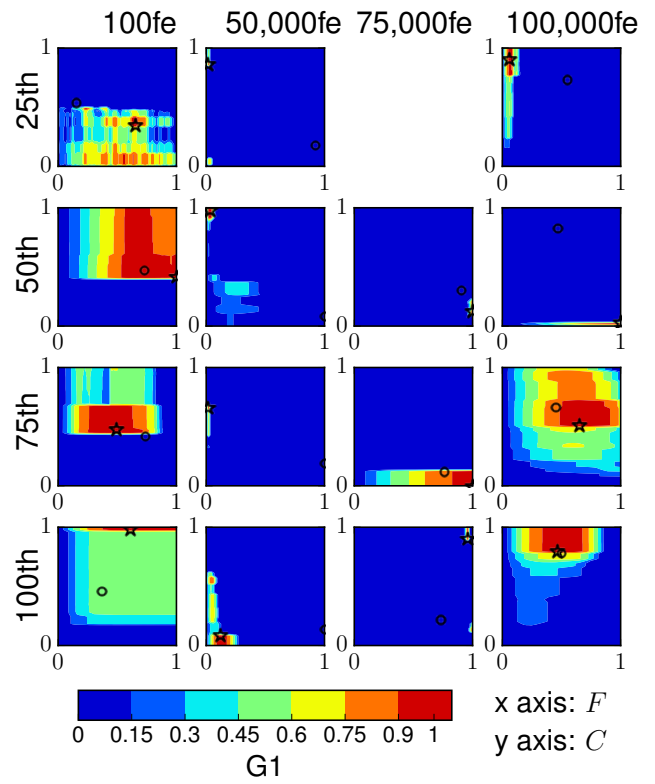


Figure S.52: Contour maps of adaptive parameter landscapes in P-SHADE on f_4 with $d = 20$.

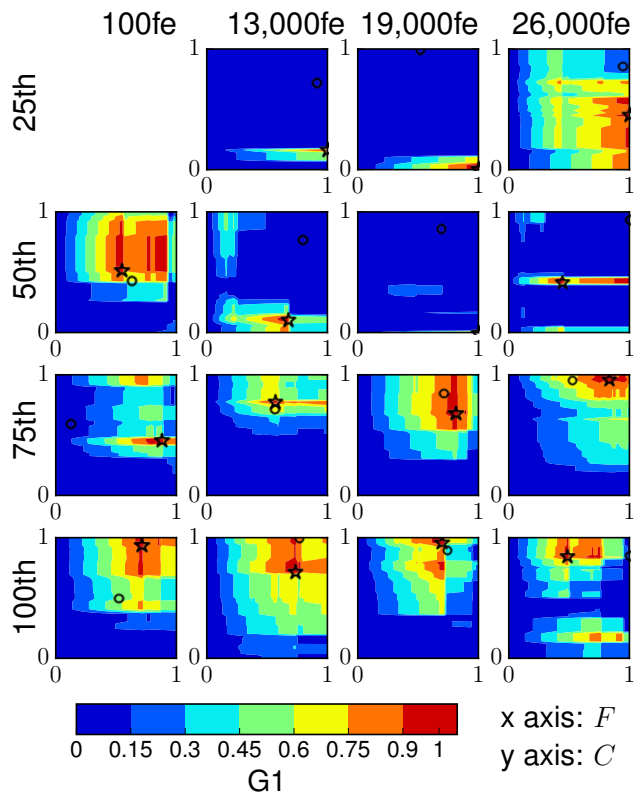


Figure S.53: Contour maps of adaptive parameter landscapes in P-SHADE on f_5 with $d = 20$.

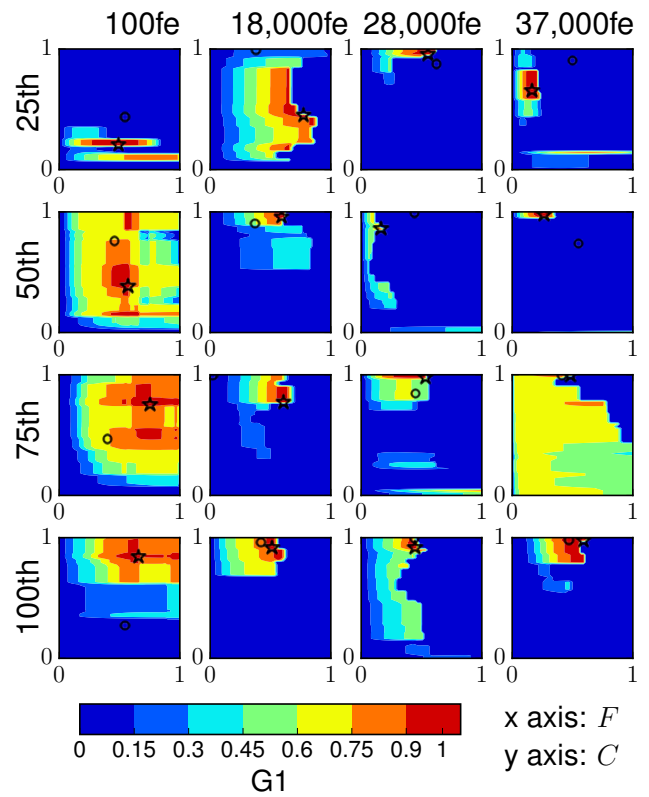


Figure S.54: Contour maps of adaptive parameter landscapes in P-SHADE on f_6 with $d = 20$.

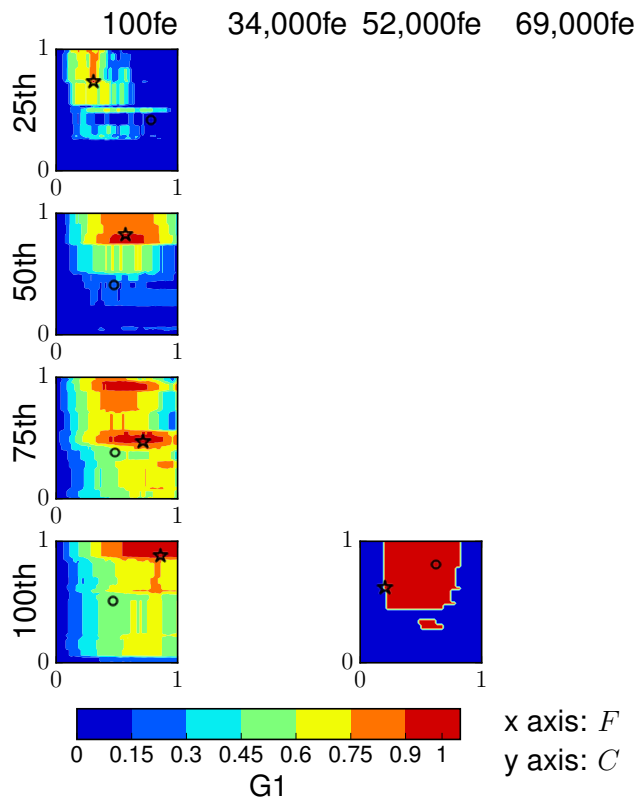


Figure S.55: Contour maps of adaptive parameter landscapes in P-SHADE on f_7 with $d = 20$.

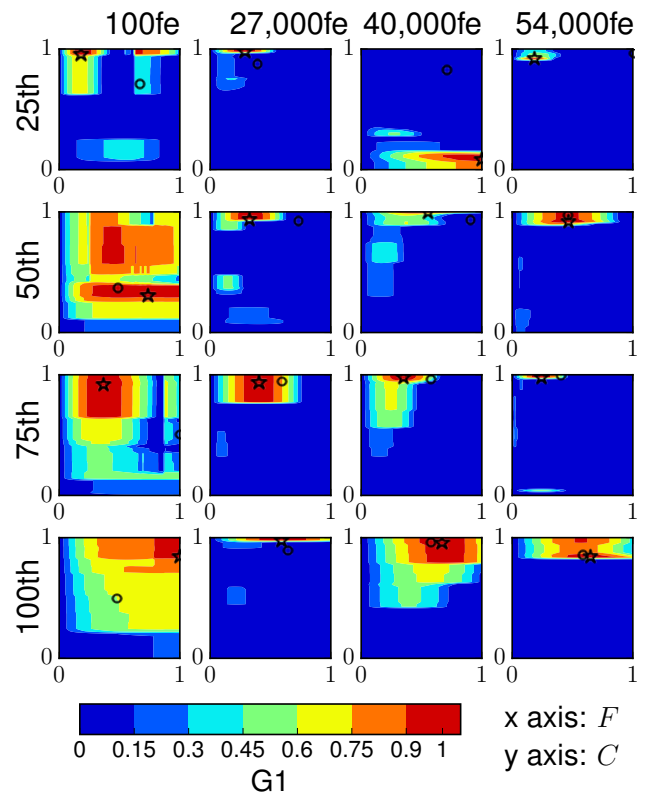


Figure S.56: Contour maps of adaptive parameter landscapes in P-SHADE on f_8 with $d = 20$.

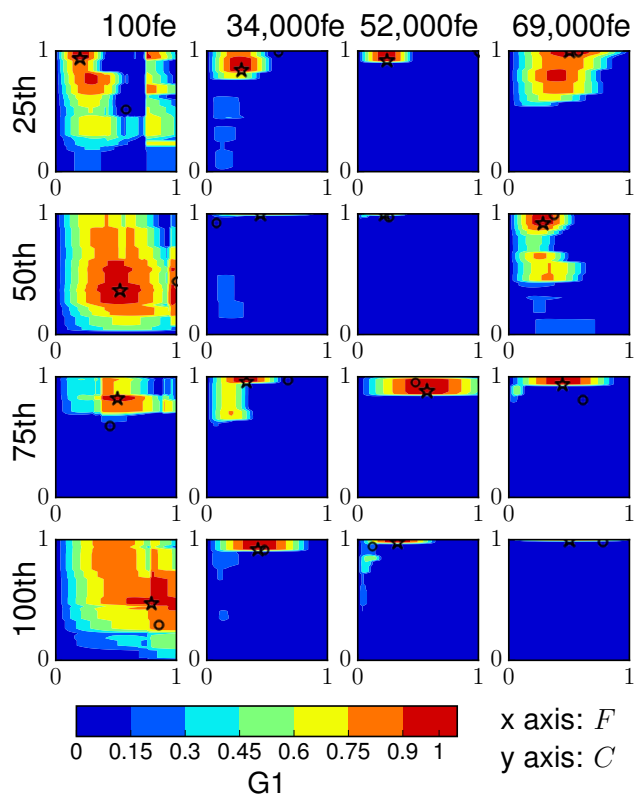


Figure S.57: Contour maps of adaptive parameter landscapes in P-SHADE on f_9 with $d = 20$.

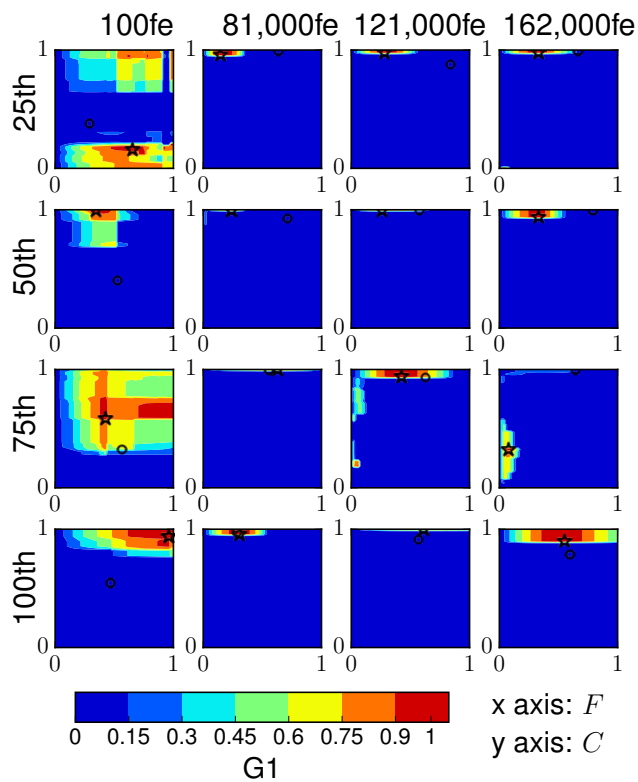


Figure S.58: Contour maps of adaptive parameter landscapes in P-SHADE on f_{10} with $d = 20$.

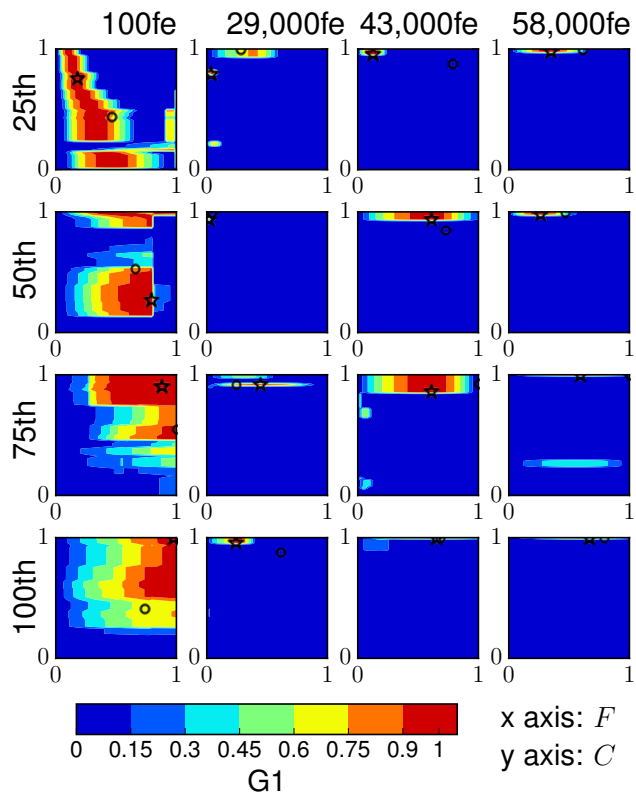


Figure S.59: Contour maps of adaptive parameter landscapes in P-SHADE on f_{11} with $d = 20$.

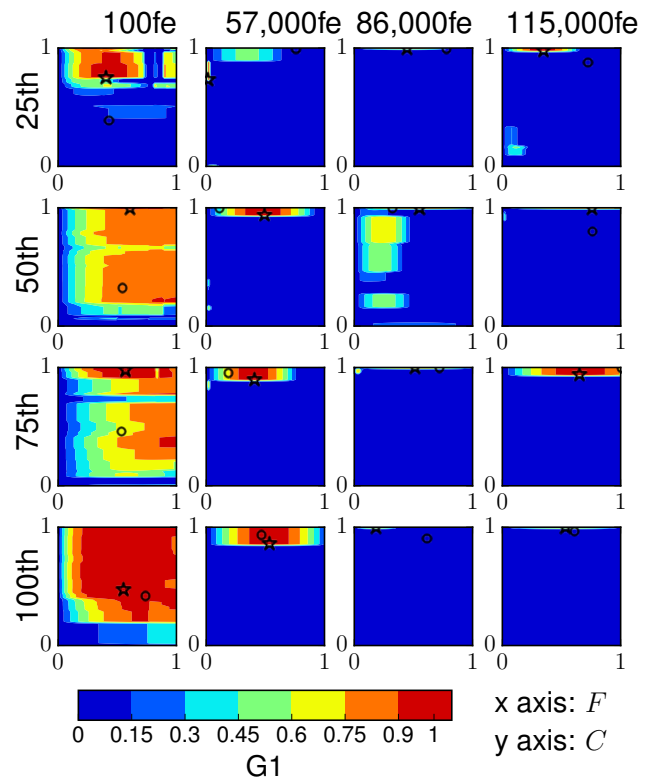


Figure S.60: Contour maps of adaptive parameter landscapes in P-SHADE on f_{12} with $d = 20$.

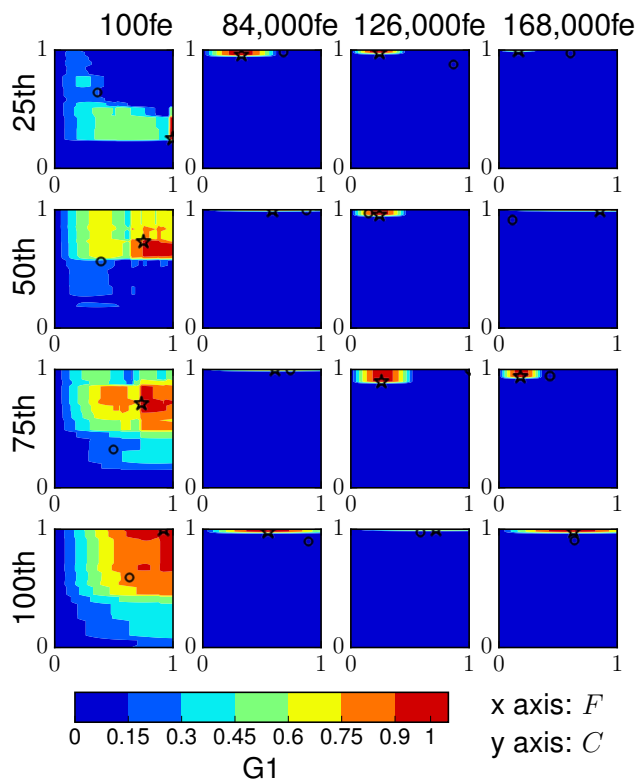


Figure S.61: Contour maps of adaptive parameter landscapes in P-SHADE on f_{13} with $d = 20$.

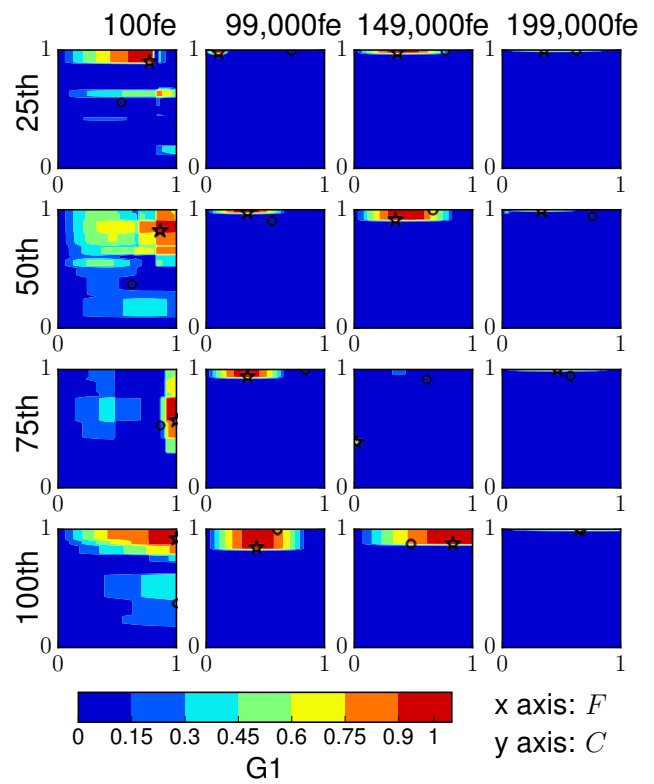


Figure S.62: Contour maps of adaptive parameter landscapes in P-SHADE on f_{14} with $d = 20$.

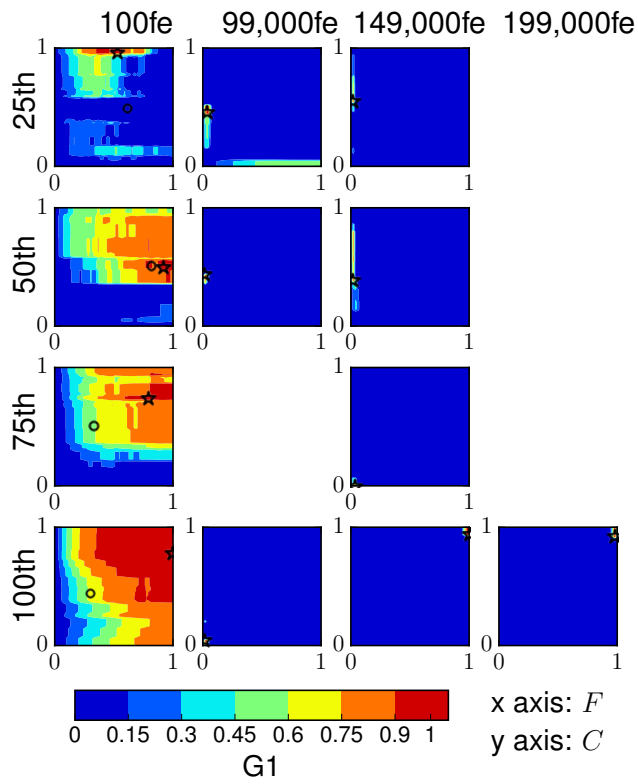


Figure S.63: Contour maps of adaptive parameter landscapes in P-SHADE on f_{15} with $d = 20$.

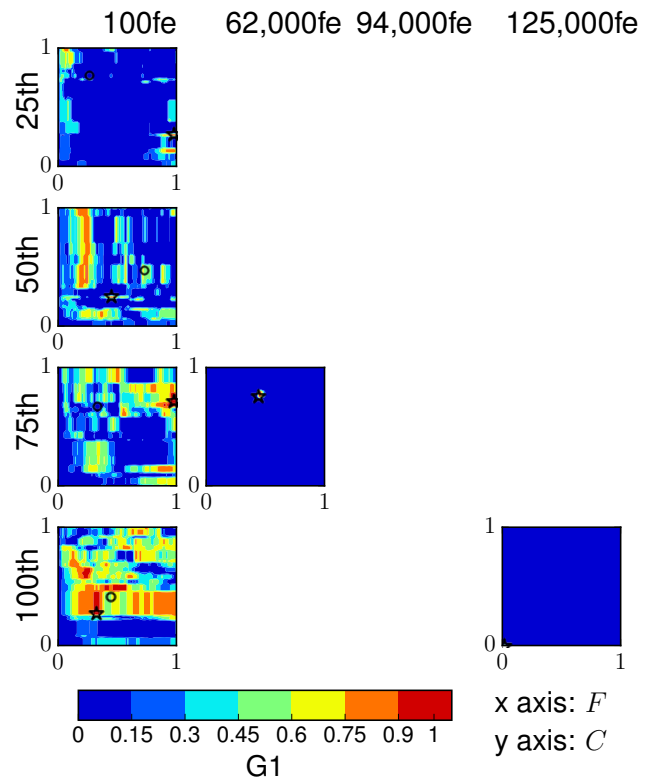


Figure S.64: Contour maps of adaptive parameter landscapes in P-SHADE on f_{16} with $d = 20$.

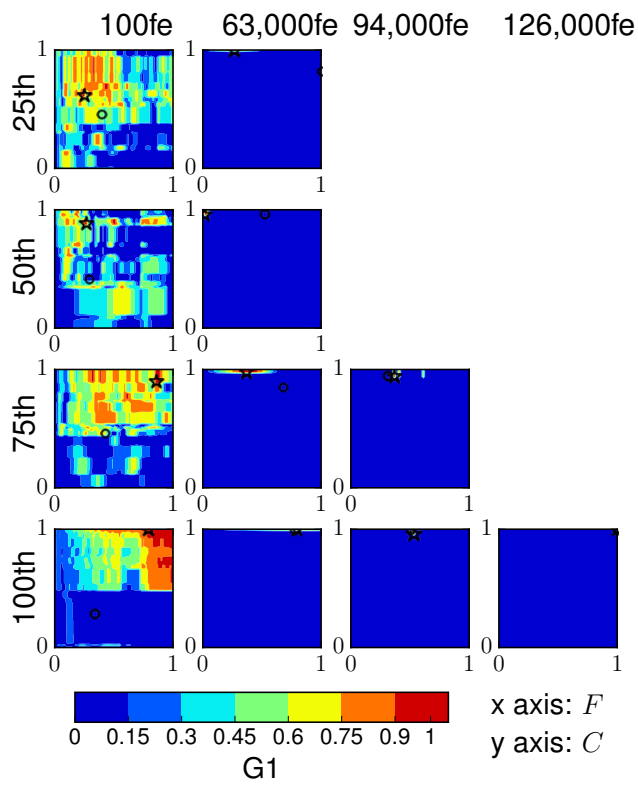


Figure S.65: Contour maps of adaptive parameter landscapes in P-SHADE on f_{17} with $d = 20$.

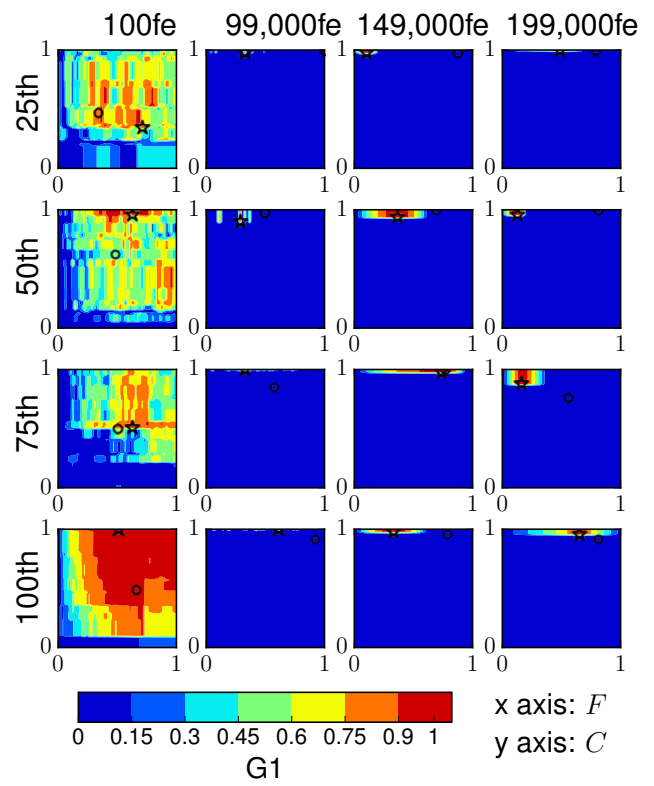


Figure S.66: Contour maps of adaptive parameter landscapes in P-SHADE on f_{18} with $d = 20$.

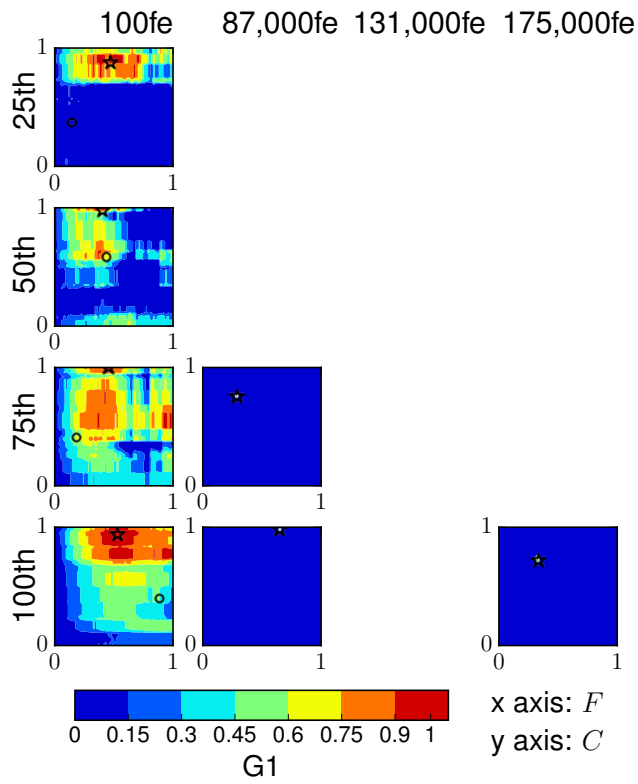


Figure S.67: Contour maps of adaptive parameter landscapes in P-SHADE on f_{19} with $d = 20$.

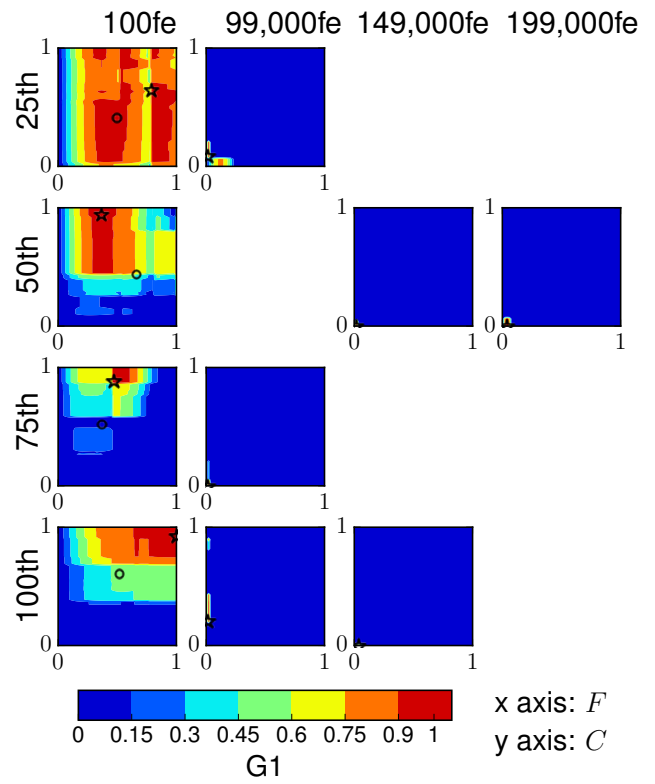


Figure S.68: Contour maps of adaptive parameter landscapes in P-SHADE on f_{20} with $d = 20$.

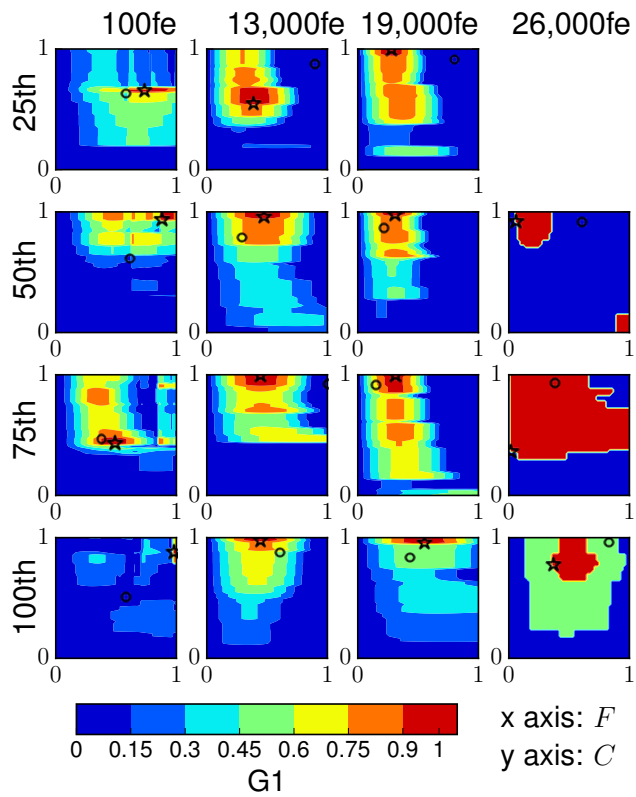


Figure S.69: Contour maps of adaptive parameter landscapes in P-SHADE on f_{21} with $d = 20$.

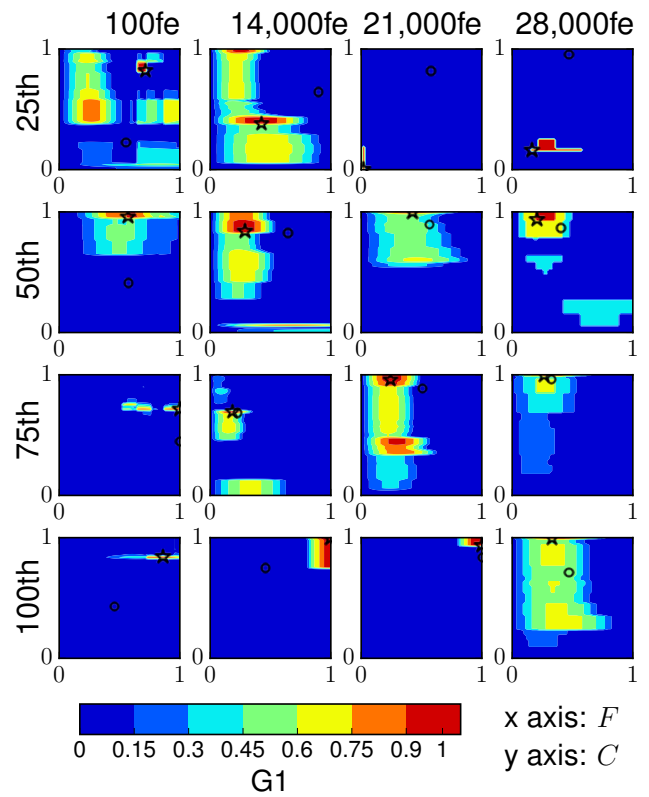


Figure S.70: Contour maps of adaptive parameter landscapes in P-SHADE on f_{22} with $d = 20$.

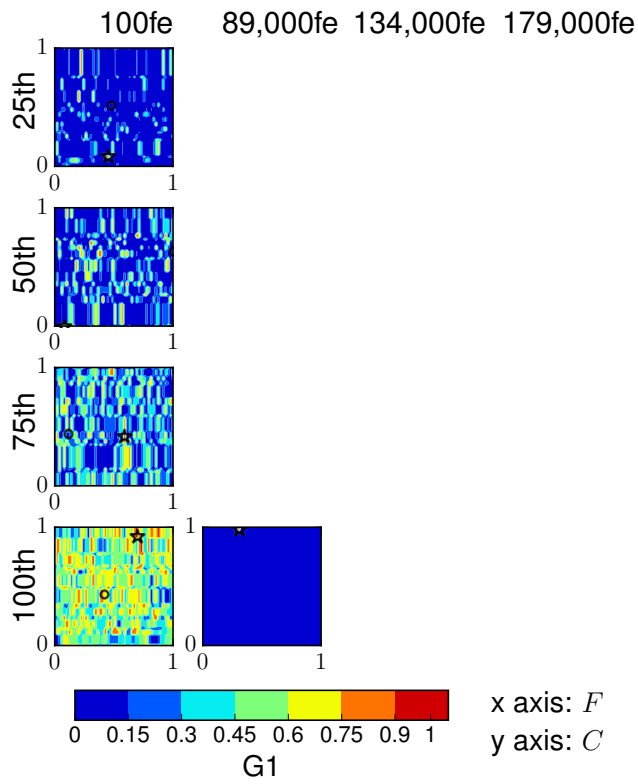


Figure S.71: Contour maps of adaptive parameter landscapes in P-SHADE on f_{23} with $d = 20$.

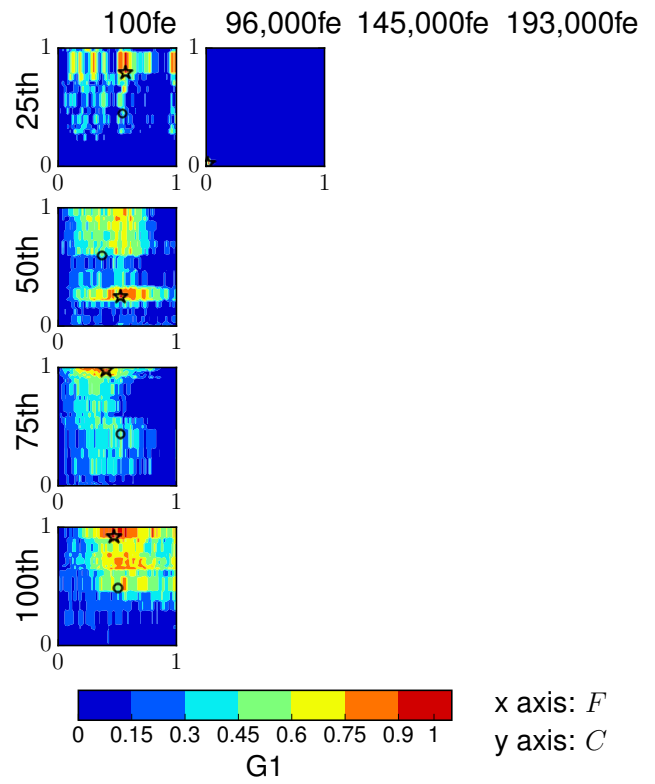


Figure S.72: Contour maps of adaptive parameter landscapes in P-SHADE on f_{24} with $d = 20$.

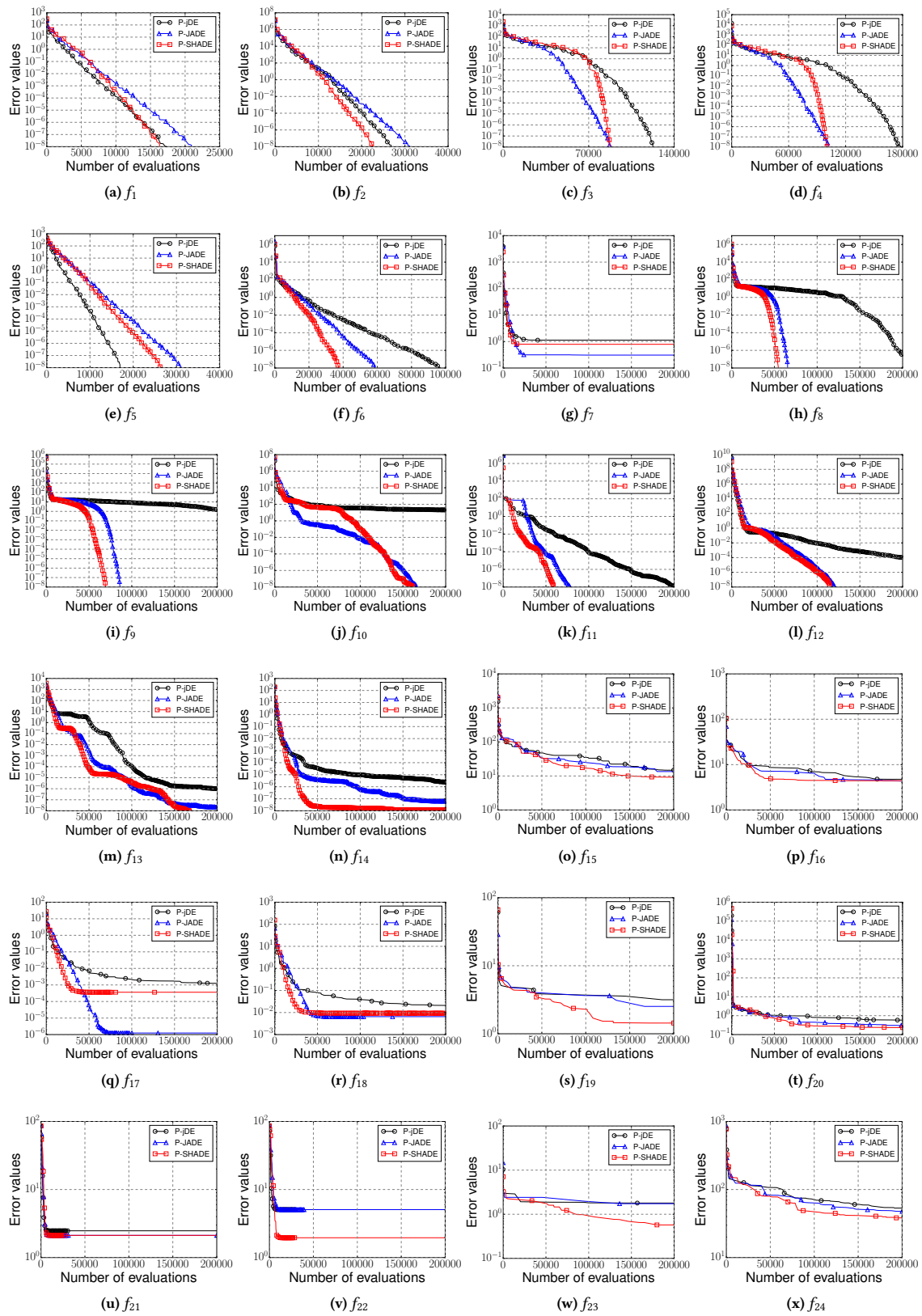


Figure S.73: Error values of DE with P-jDE, P-JADE, and P-SHADE on the 24 BBOB functions with $d = 20$.

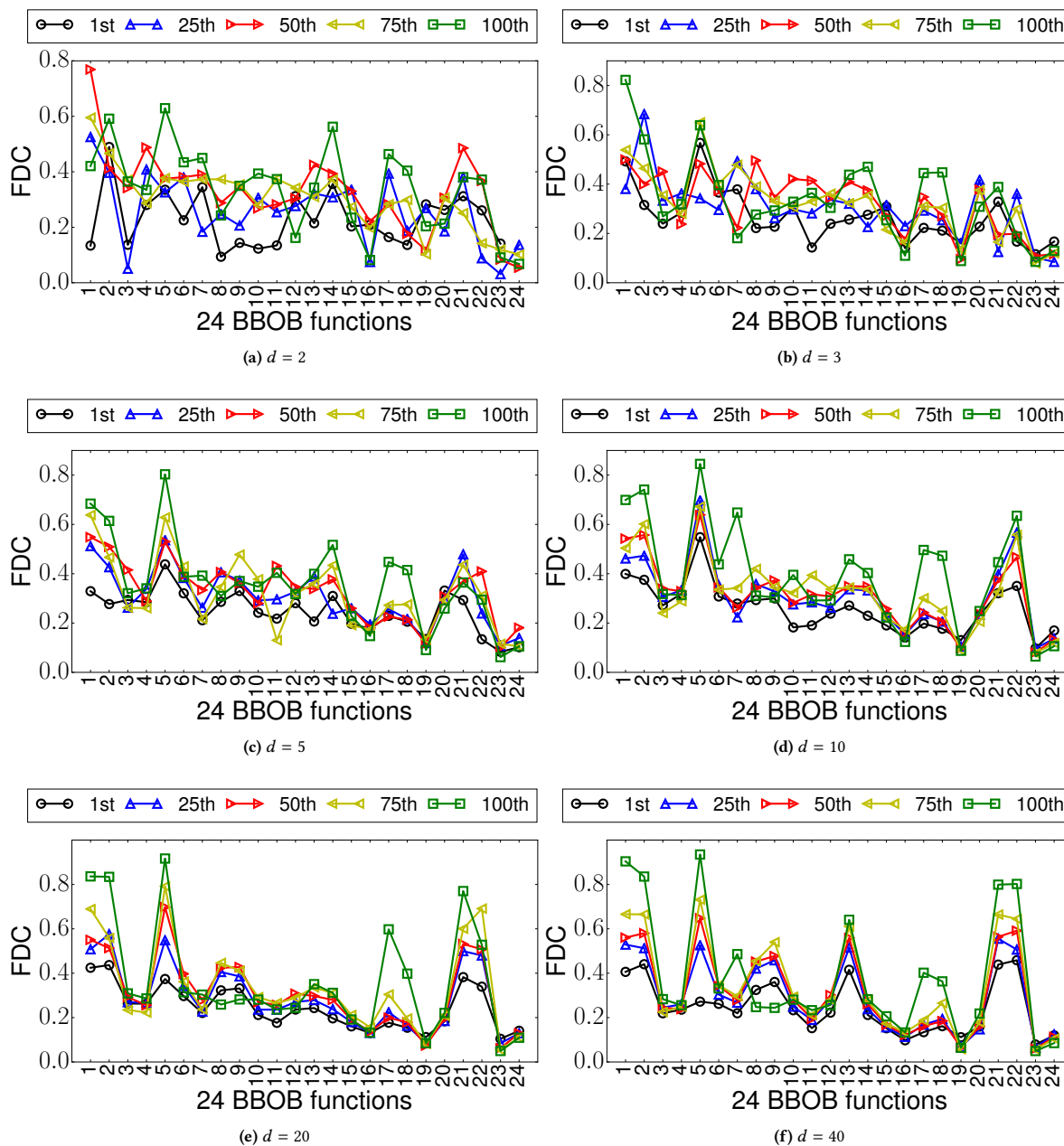


Figure S.74: Average FDC values of P-jDE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

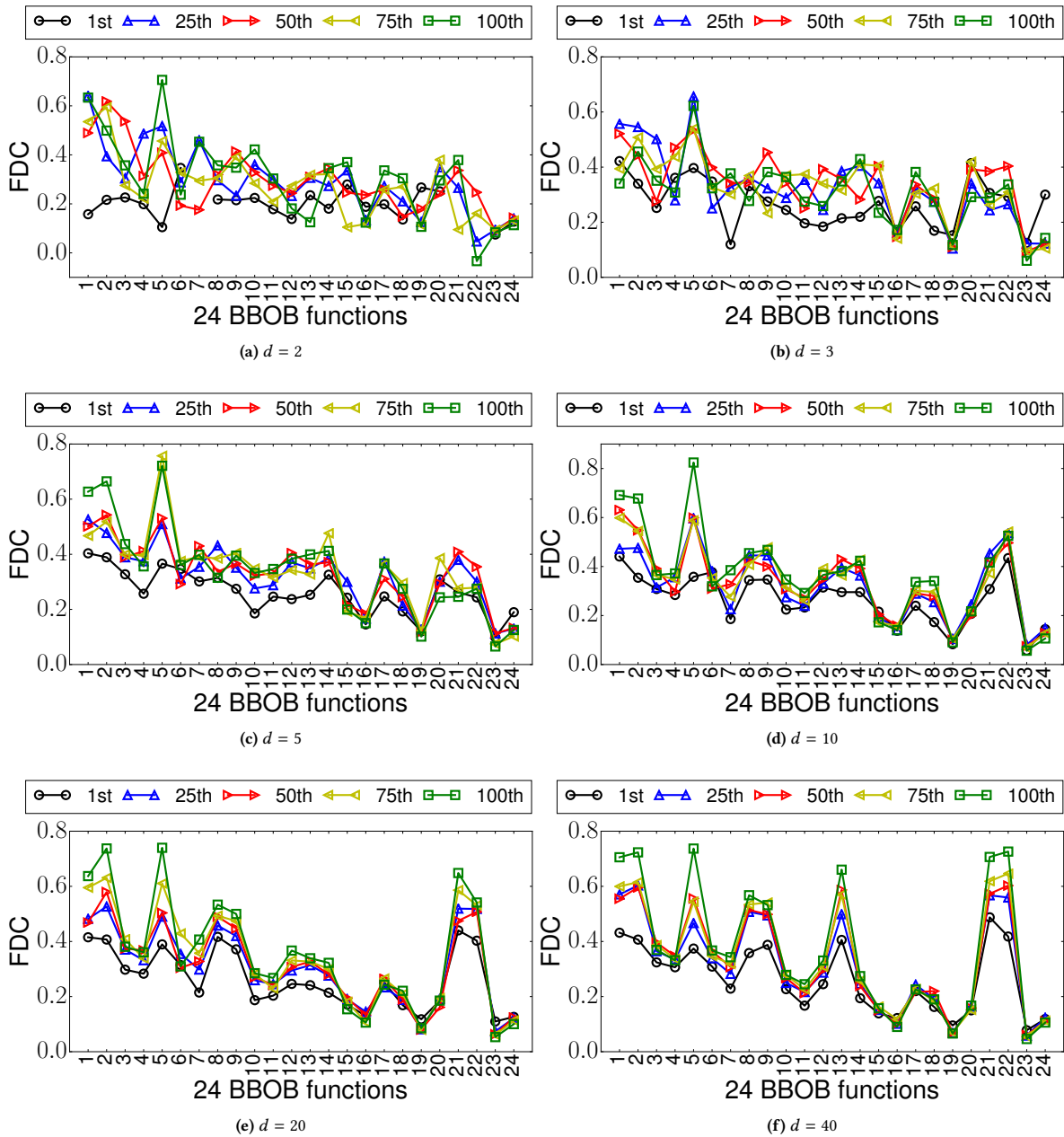


Figure S.75: Average FDC values of P-JADE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

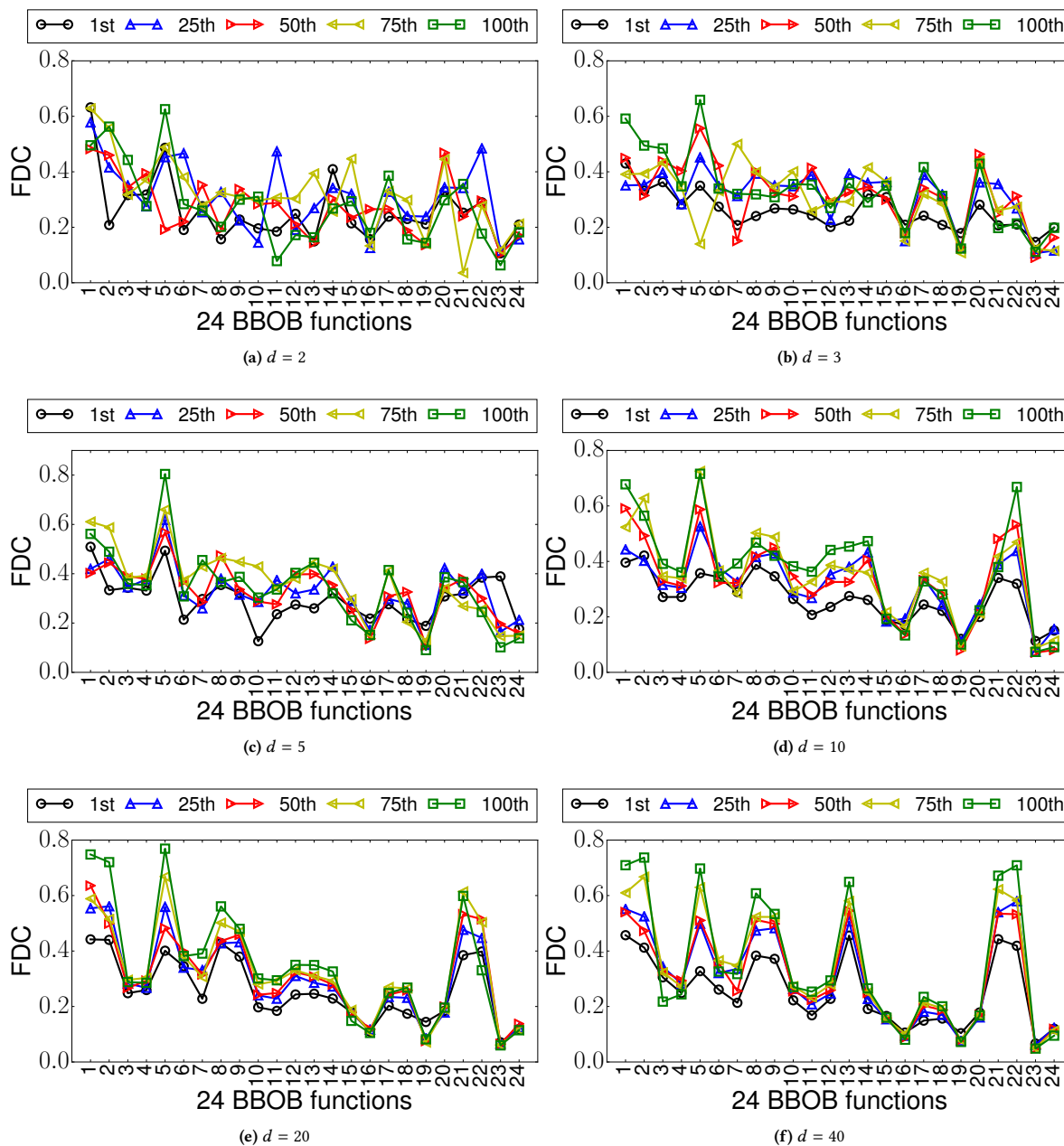


Figure S.76: Average FDC values of P-SHADE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

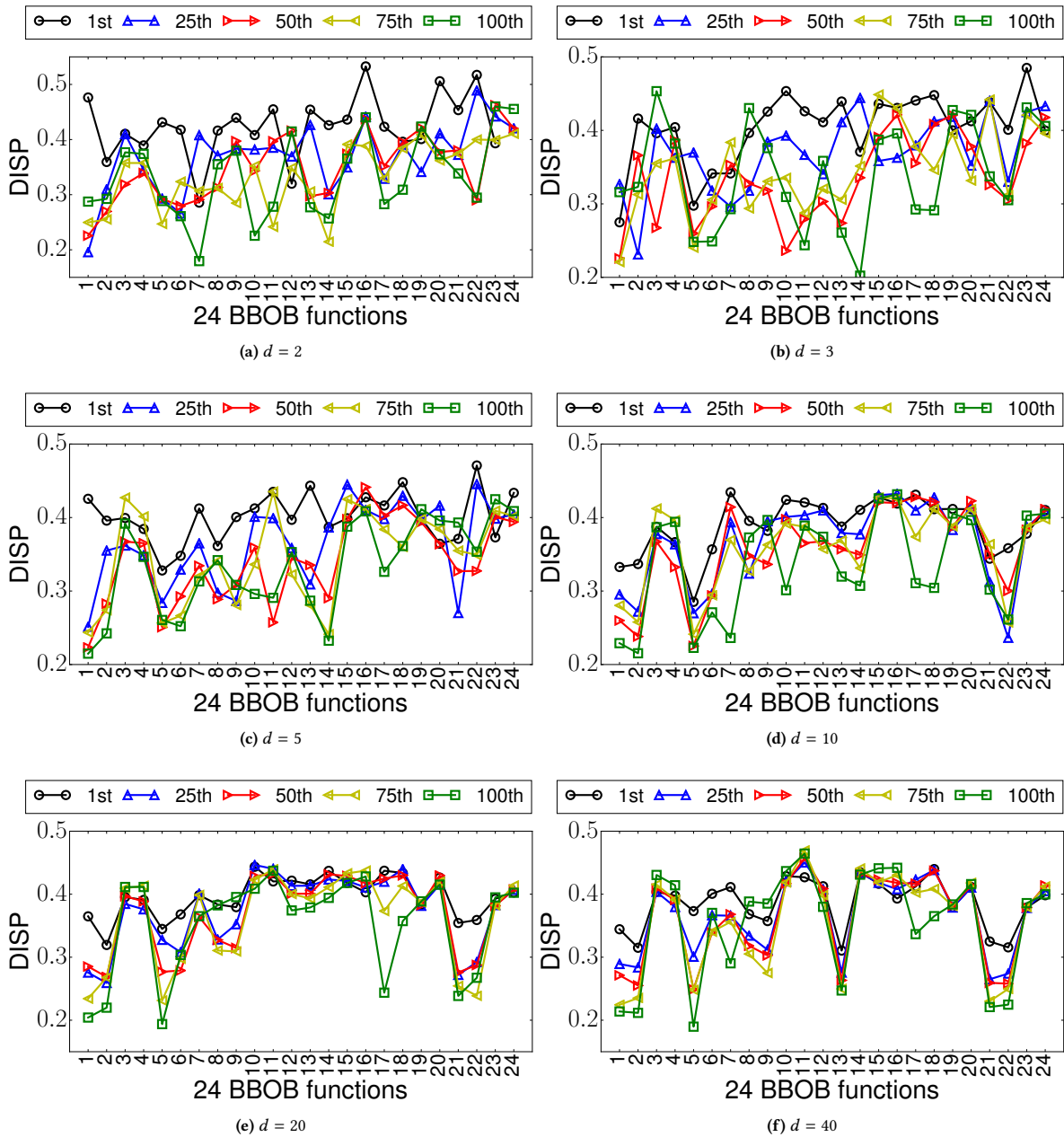


Figure S.77: Average DISP values of P-jDE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

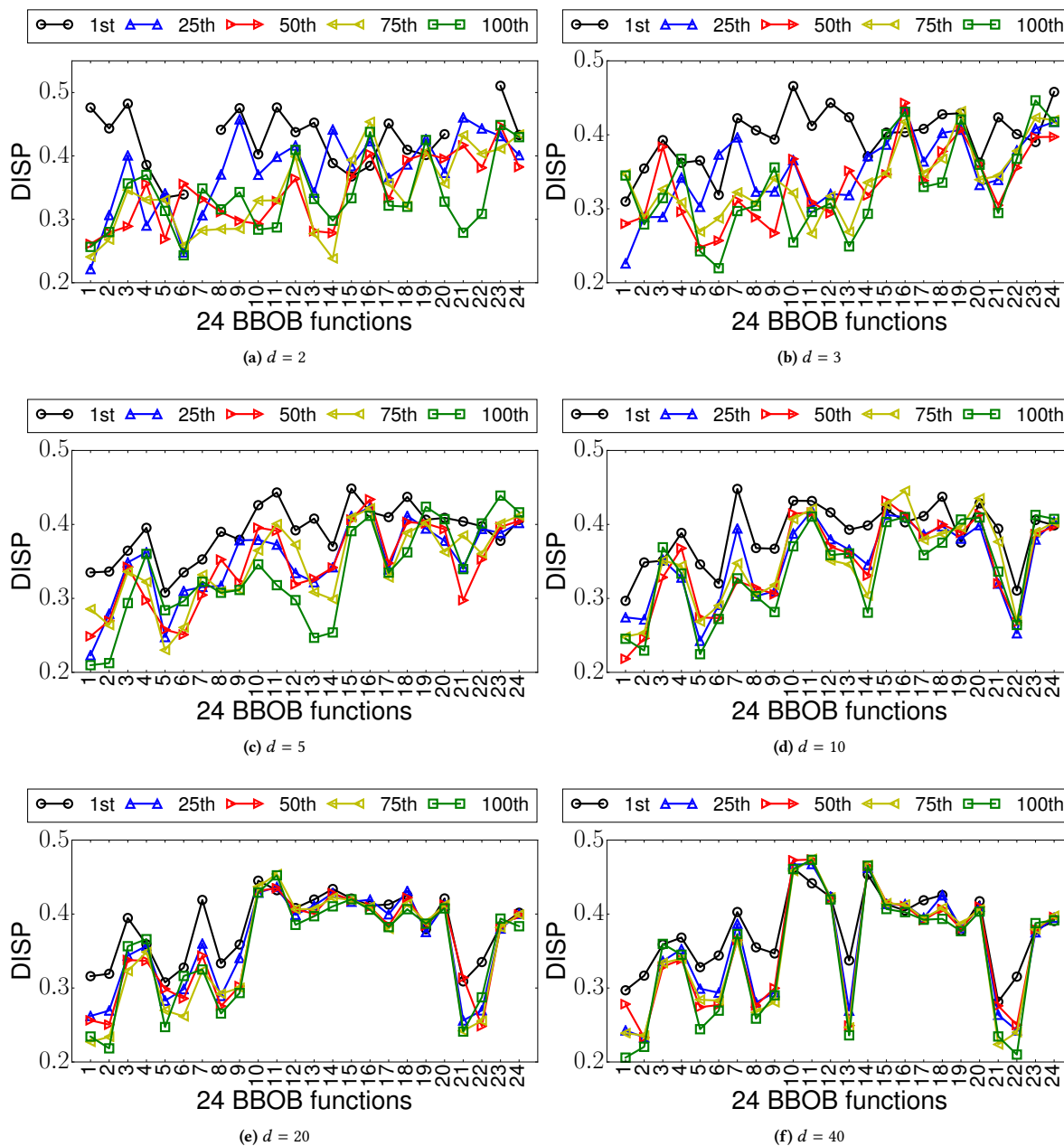


Figure S.78: Average DISP values of P-JADE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

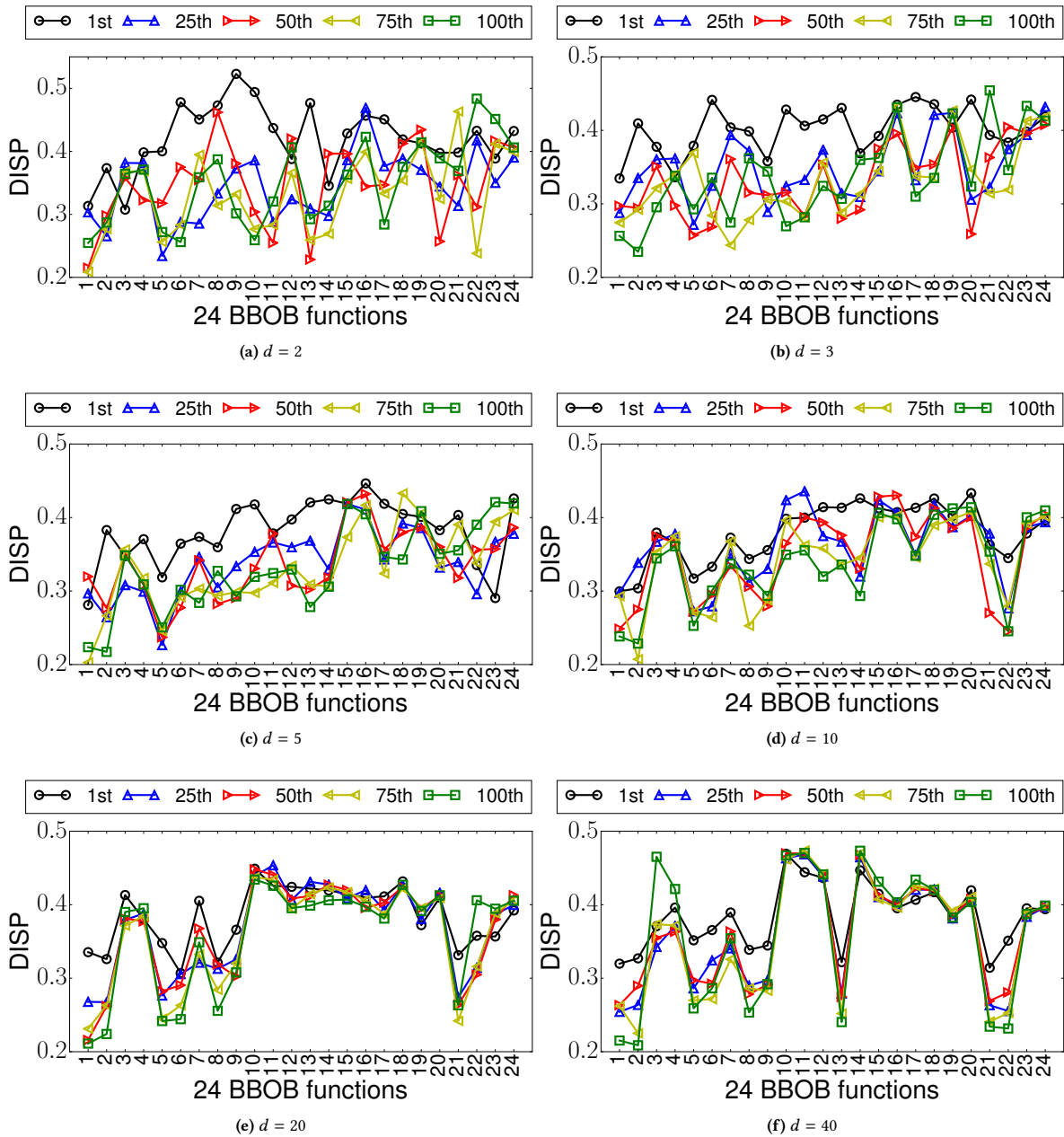


Figure S.79: Average DISP values of P-SHADE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

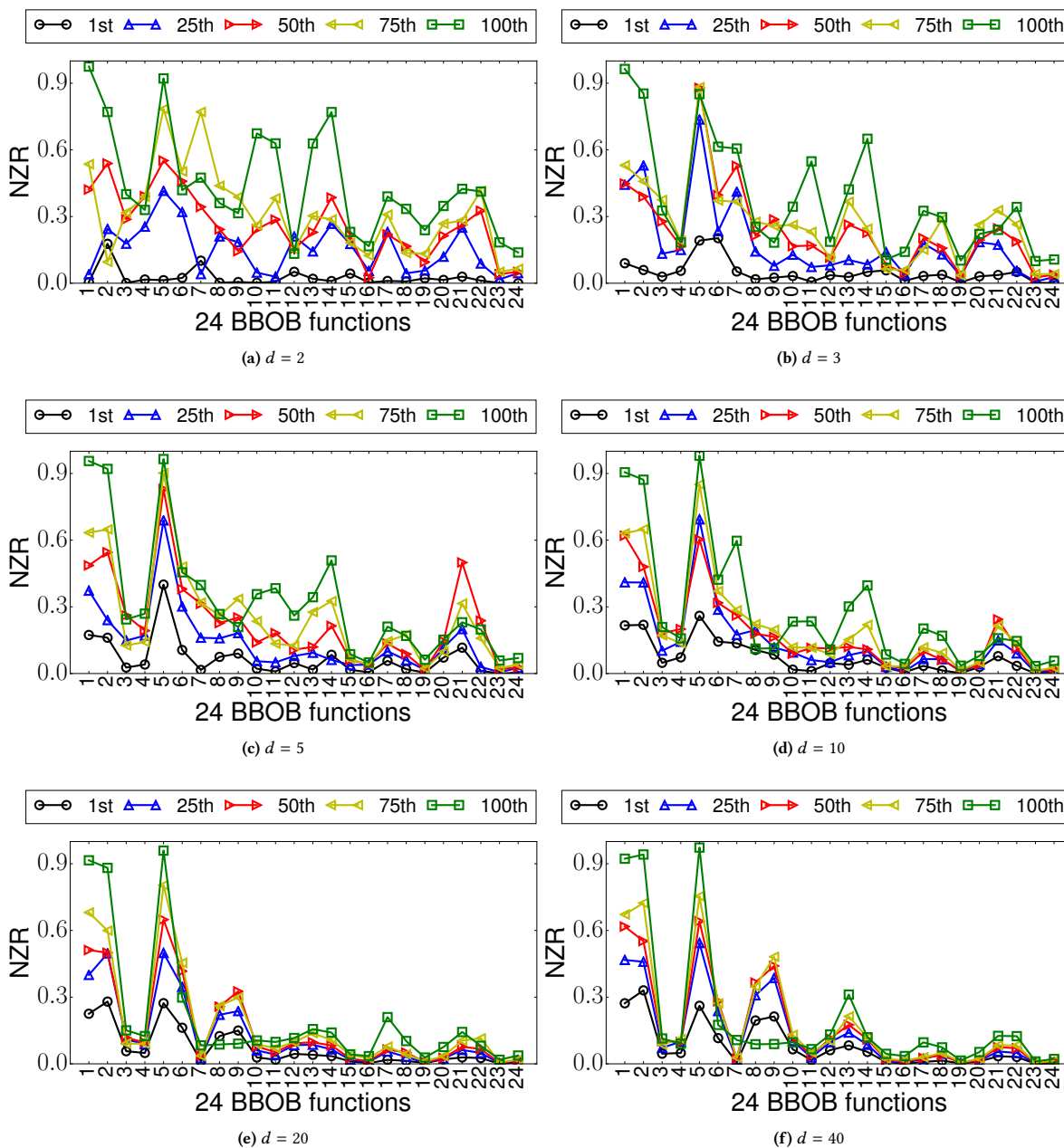


Figure S.80: Average NZR values of P-jDE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

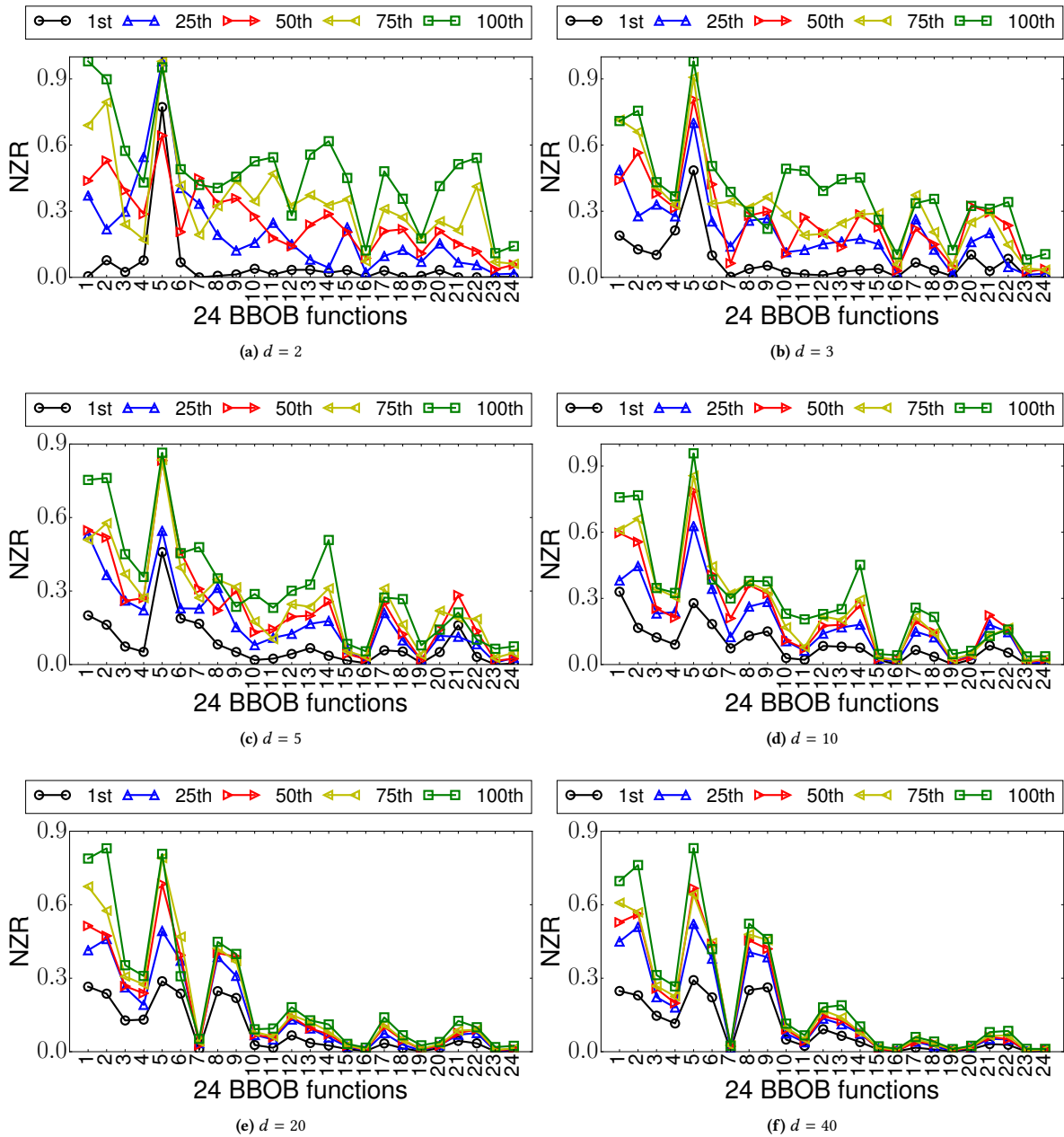


Figure S.81: Average NZR values of P-JADE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.

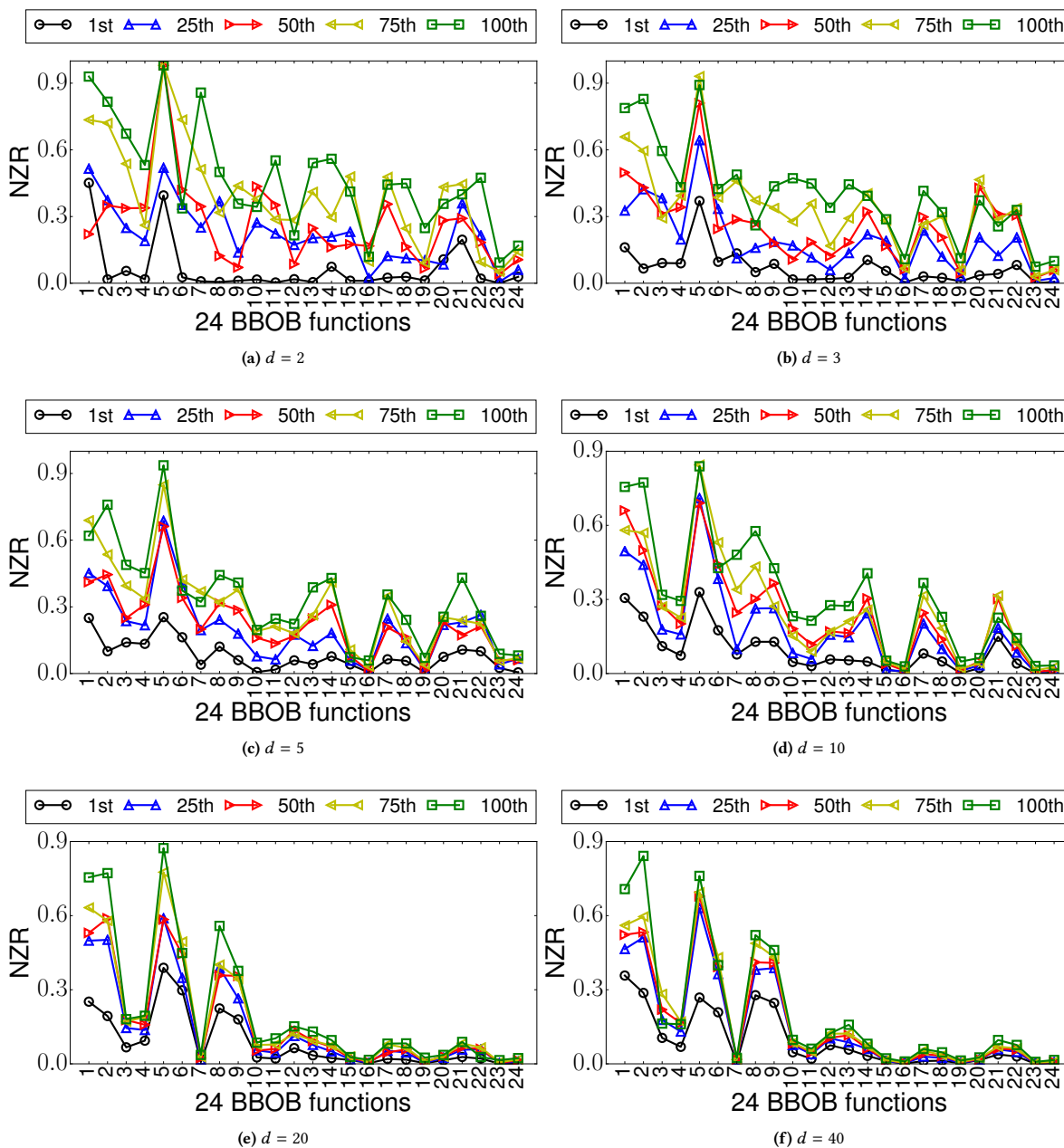


Figure S.82: Average NZR values of P-SHADE on the 24 BBOB functions with $d \in \{2, 3, 5, 10, 20, 40\}$.