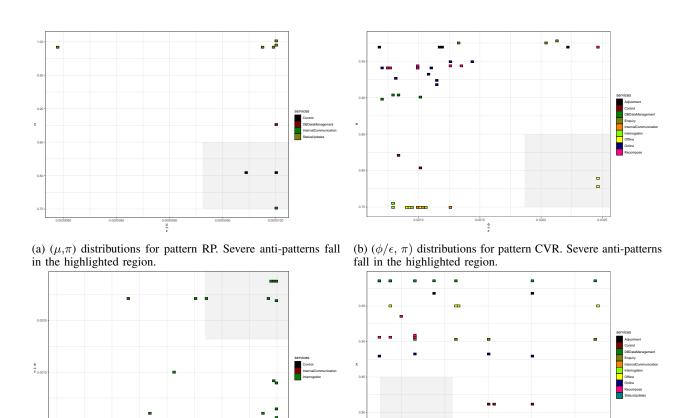


(c) $(\phi/\epsilon,\tau)$ distributions for pattern TJ with $\pi\in[75\%,85\%]$. (d) $(\chi/\epsilon,\pi)$ values of PF for pattern AH across operations.

Fig. 1: Instances of SPAs in Sock Shop operations. gray areas indicate the severe SPAs.



(c) $(\phi/\epsilon, \tau)$ distributions for pattern TJ with $\pi \in [75\%, 85\%]$. (d) $(\chi/\epsilon, \pi)$ values of PF for pattern AH across microservices. Severe anti-patterns fall in the highlighted region.

 $\frac{\chi}{\epsilon}$

Fig. 2: Instances of SPAs in the microservices of the Telecommunication System. Gray areas indicate severe SPAs.