Multigrid V-cycle exchange optimization

(a) Original

Red → E → Black → E → Resid → E → Norm → E → Restr → E → Prolog → E → ...

φ   φ   r   r   φ   φ

9 exchanges

(b) Optimized

Red → ✗ → Black → E → sid.+No → ✗ → E → Restr → E → Prolog → E → E

φ   r   φ   φ   φ

5 exchanges

(−44%)