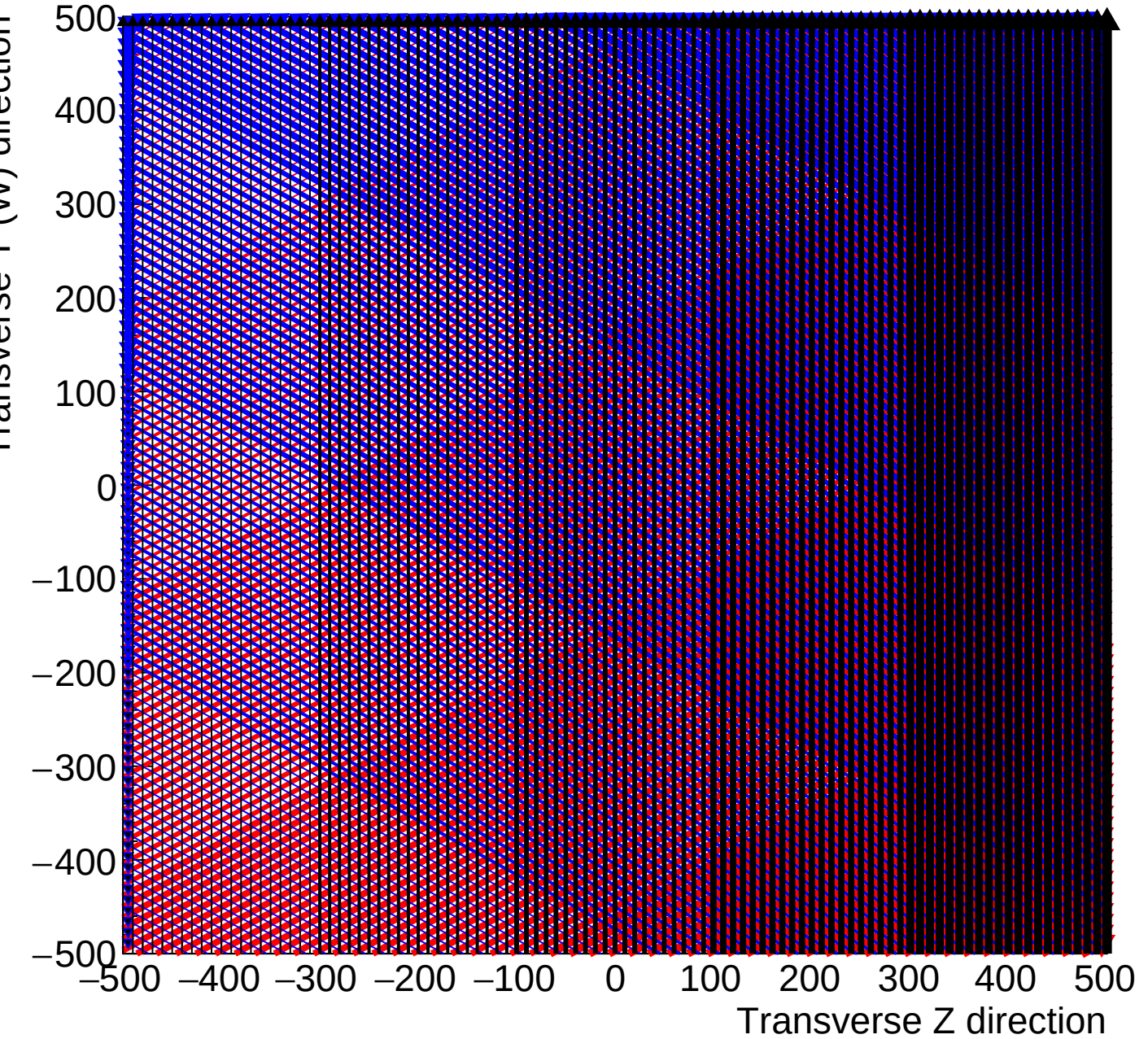red=U, blue=V, +X (-drift) direction into page