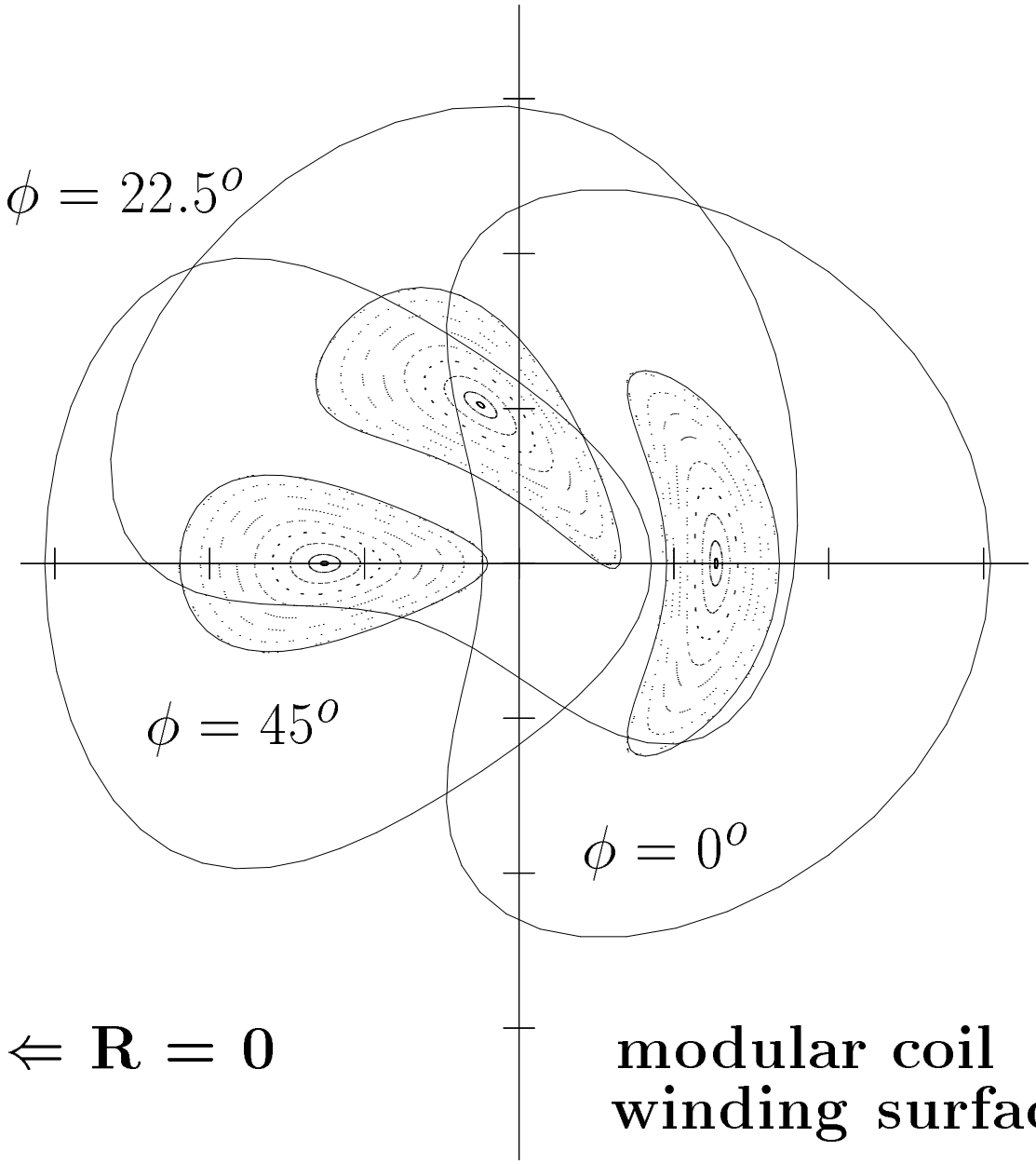
$\phi = 22.5^o$
$\phi = 45^o$
$\phi = 0^o$
$\Leftarrow \mathbf{R = 0}$
modular coil winding surface