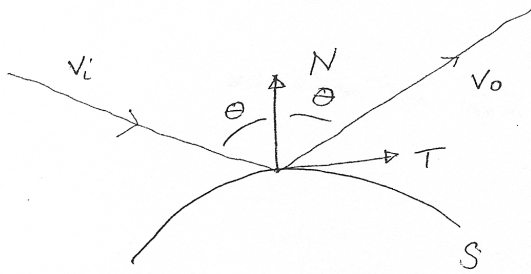


Specular reflection



- Standard specular surface
- N is unit normal
- T is ~~unit~~ tangent vector in plane of (N, V_i)

$$V_o \cdot N = -V_i \cdot N$$

$$V_o \cdot T = V_i \cdot T$$

$$(V_o \cdot T)T = V_i - (V_i \cdot N)N$$

$$\begin{aligned} \therefore V_o &= (V_o \cdot N)N + (V_o \cdot T)T \\ &= \boxed{V_i - 2(V_i \cdot N)N} \end{aligned}$$

Notice that some special surfaces have off-specular glints
- different calc of spawned ray, otherwise no change.