



Figure IX.6: Computing the transmission ray direction  $\mathbf{t}$ . The horizontal line represents the surface of a transmissive material;  $\mathbf{n}$  is the unit vector normal to the surface. The vector  $\mathbf{v}$  points in the direction opposite to the incoming ray. The direction of perfect transmission is shown by the vector  $\mathbf{t}$ . The vectors  $\mathbf{v}_{lat}$  and  $\mathbf{t}_{lat}$  are the projections of these vectors onto the plane tangent to the surface. And,  $\mathbf{t}_{perp}$  is the projection of  $\mathbf{t}$  onto the normal vector.