$\int \sin^4 x \cos^2 x \, dx$

Session 69

$$\int \sin^4 x \cos^2 x = \int \left(\frac{1-\cos 2x}{2}\right)^2 \cos^2 x = \frac{1}{8}\left[\frac{x}{2} - \frac{\sin 2x}{4} - \frac{1}{6}\sin^3(2x)\right] + C$$