

③ $\nexists f: S^n \rightarrow S^1$ continua $\mid f(-x) = -f(x), n \geq 2$

Siano $f: S^n \rightarrow S^1$ continua ed $e: \mathbb{R} \rightarrow S^1$ rivestimento (Esempio 3.5.1)

Lemma 4.1.3 } $\Rightarrow \exists \tilde{f}: S^n \rightarrow \mathbb{R}$ continua $\mid e \circ \tilde{f} = f$
Oss 4.1.4 }

Lemma 4.1.5 } $\Rightarrow \exists y_0 \in S^n \mid \tilde{f}(y_0) = \tilde{f}(-y_0)$
Oss 4.1.6 }

$\left. \begin{array}{l} e \circ f = f \\ \tilde{f}(y_0) = \tilde{f}(-y_0) \end{array} \right\} \Rightarrow f(y_0) = e(\tilde{f}(y_0)) = e(\tilde{f}(-y_0)) = f(-y_0) \neq -f(y_0) \because f(y_0) \in S^1$
 $\Rightarrow f(-x) \neq -f(x)$

