

Mathematical Physics — PHZ 3113

Homework 7 (February 22, 2013)

1. Continuation of Midterm 1, Problem 5:
Consider $\alpha_1 = \alpha_2 = \alpha$ and find the angle $\alpha_0 > 0$, so that for $0 < \alpha < \alpha_0$

$$\left| \vec{T}^1 \right| = \left| \vec{T}^2 \right| > \left| \vec{F}^2 \right| \quad (1)$$

holds (6 points).

2. Use Stoke's Theorem to calculate the line integral of the previous homework (4 points).