

test

February 4, 2025

1 Question 6

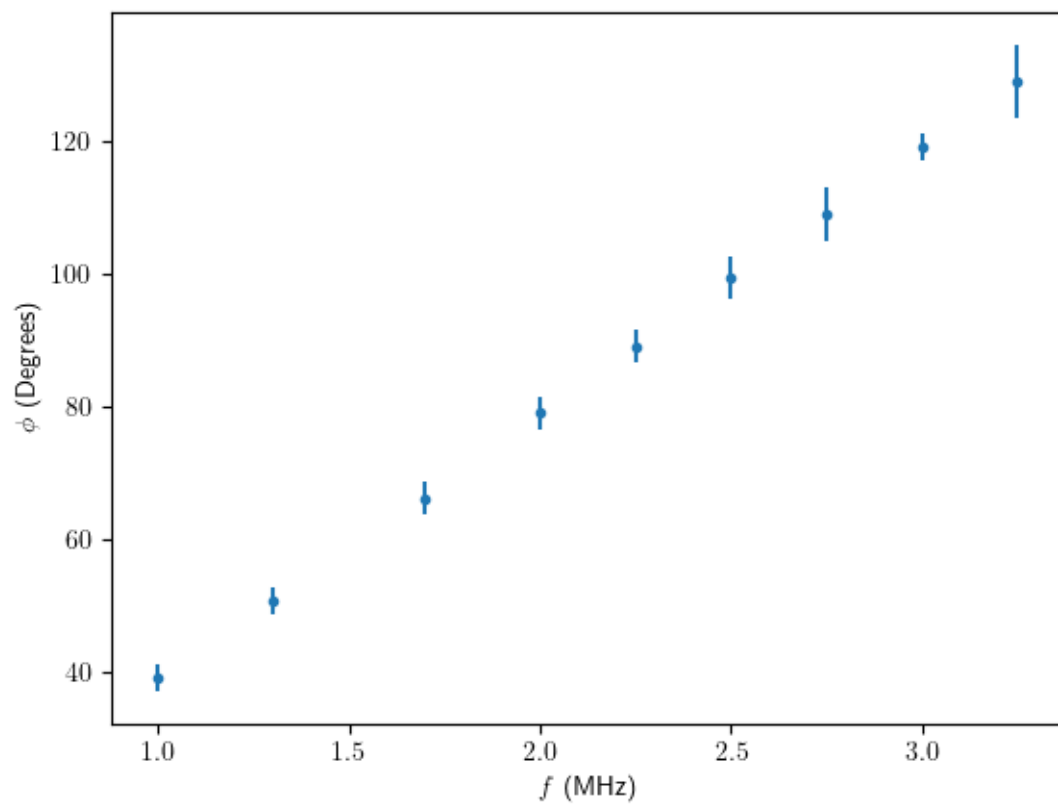
1.1 Ali Ahmed

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[2]: import numpy as np
import matplotlib.pyplot as plt
```

```
[3]: # import data
f = [1.00, 1.30, 1.70, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25]
sigma_f = [0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01]
phi = [39.3, 50.8, 66.3, 79.1, 89.1, 99.4, 109, 119, 129]
sigma_phi = [2.0, 2.0, 2.5, 2.5, 2.4, 3.2, 4.1, 2.0, 5.5]
```

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[16]: # make it all latex
plt.rcParams['text.usetex'] = True

plt.errorbar(x=f, y=phi, xerr=sigma_f, yerr=sigma_phi, fmt=".")
plt.xlabel("$f$ (MHz)")
plt.ylabel("$\phi$ (Degrees)")
plt.show()
```



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