

Wave laboratory student worksheet. Record your experiments on this form.

|             |             |
|-------------|-------------|
| <b>Name</b> | <b>Date</b> |
|-------------|-------------|

Some simulations are easy to describe using a few numbers. Others may have complex behavior that requires some verbal description, e.g. “wave tank to the right of the driver has 4.5 standing waves. wave tank to left of driver does not have much resonance.”

Use the lines in the chart below to record concise data. Use the notes area if you need extra room for verbal descriptions of the wave tank behavior. Change tank size with the “edit” button at top of wave graphics window. Change 3D angle for optimal viewing.

| Fluid Parameters |           | Driver Parameters |     |   |           |      | Waves      | Tank |
|------------------|-----------|-------------------|-----|---|-----------|------|------------|------|
| Friction         | Stiffness | Freq              | X   | Y | Amplitude | Size | # of Peaks | Size |
| 0.17             | 2.5       | 60                | 0   | 0 | 1.5       | 1    |            | 45x7 |
| 0.17             | 2.5       | 60                | -5  | 0 | 1.5       | 1    |            | 45x7 |
| 0.17             | 2.5       | 60                | -7  | 0 | 1.5       | 1    |            | 45x7 |
| 0.17             | 2.5       | 60                | -14 | 0 | 1.5       | 1    |            | 45x7 |
| 0.17             | 2.5       | 60                | -20 | 0 | 1.5       | 1    |            | 45x7 |
| 0                | 7.5       | 60                | -20 | 0 | 1.5       | 1    |            | 45x7 |
| 0                | 7.5       | 60                | -20 | 0 | 5.0       | 1    |            | 45x7 |
| 0                | 3.5       | 60                | -20 | 0 | 5.0       | 1    |            | 45x7 |
| 0                | 1.2       | 60                | -20 | 0 | 5.0       | 1    |            | 45x7 |
| 3.5              | 1.2       | 60                | -20 | 0 | 5.0       | 1    |            | 45x7 |
| 3.5              | 1.2       | 60                | -3  | 0 | 2.0       | 1    |            | 30x7 |
| 2.0              | 1.2       | 60                | -3  | 0 | 2.0       | 1    |            | 30x7 |
| 0.2              | 1.2       | 60                | -3  | 0 | 1.0       | 1    |            | 30x7 |
| 0.2              | 0.4       | 60                | -3  | 0 | 2.0       | 1    |            | 30x7 |

Notes: