# Collections of Hilbert Series Data

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# 1 N=2

## 1.1 E=3

Table 1: Quivers with 2 Vertices and 3 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 1.2 E=4

Table 2: Quivers with 2 Vertices and 4 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 847 |
| 1 | 1 | $-1/(T-1)$ | 153 |

## 1.3 E=5

Table 3: Quivers with 2 Vertices and 5 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 983 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 473 |
| 2 | 3 | $(2T+1)/(T-1)^2$ | 30 |
| 1 | 1 | $-1/(T-1)$ | 14 |

## 2 N=3

### 2.1 E=3

Table 4: Quivers with 3 Vertices and 3 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

### 2.2 E=4

Table 5: Quivers with 3 Vertices and 4 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 60 |

### 2.3 E=5

Table 6: Quivers with 3 Vertices and 5 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 963 |
| 1 | 1 | $-1/(T-1)$ | 92 |
| 2 | 1 | $(T-1)^{-2}$ | 70 |

### 2.4 E=6

Table 7: Quivers with 3 Vertices and 6 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | $1$ | 3277 |
| 1 | 1 | $-1/(T-1)$ | 1586 |
| 2 | 1 | $(T-1)^{-2}$ | 626 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 58 |
| 1 | 3 | $(-2T-1)/(T-1)$ | 50 |
| 2 | 3 | $(2T+1)/(T-1)^2$ | 11 |
| 1 | 2 | $(-T-1)/(T-1)$ | 9 |
| 3 | 2 | $(-T-1)/(T-1)^3$ | 3 |

# 3 N=4

## 3.1 E=4

Table 8: Quivers with 4 Vertices and 4 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 3.2 E=5

Table 9: Quivers with 4 Vertices and 5 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 60 |
| 1 | 1 | $-1/(T-1)$ | 5 |

## 3.3 E=6

Table 10: Quivers with 4 Vertices and 6 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 2380 |
| 1 | 1 | $-1/(T-1)$ | 660 |
| 2 | 1 | $(T-1)^{-2}$ | 193 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 7 |

## 3.4 E=7

Table 11: Quivers with 4 Vertices and 7 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | $1$ | 7693 |
| 1 | 1 | $-1/(T-1)$ | 3439 |
| 2 | 1 | $(T-1)^{-2}$ | 1687 |
| 1 | 2 | $(-T-1)/(T-1)$ | 388 |
| 3 | 1 | $-1/(T-1)^3$ | 248 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 229 |
| 1 | 3 | $(-2T-1)/(T-1)$ | 33 |
| 3 | 2 | $(-T-1)/(T-1)^3$ | 32 |
| 2 | 3 | $(2T+1)/(T-1)^2$ | 3 |
| 3 | 1 | $(T^2-T-1)/(T-1)^3$ | 3 |

# 4 N=5

## 4.1 E=5

Table 12: Quivers with 5 Vertices and 5 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 4.2 E=6

Table 13: Quivers with 5 Vertices and 6 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 110 |
| 1 | 1 | $-1/(T-1)$ | 15 |

## 4.3 E=7

Table 14: Quivers with 5 Vertices and 7 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 4141 |
| 1 | 1 | $-1/(T-1)$ | 906 |
| 2 | 1 | $(T-1)^{-2}$ | 265 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 3 |

## 4.4 E=8

Table 15: Quivers with 5 Vertices and 8 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | $1$ | 17616 |
| 1 | 1 | $-1/(T-1)$ | 11407 |
| 2 | 1 | $(T-1)^{-2}$ | 5450 |
| 3 | 1 | $-1/(T-1)^3$ | 896 |
| 1 | 2 | $(-T-1)/(T-1)$ | 592 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 173 |
| 3 | 2 | $(-T-1)/(T-1)^3$ | 44 |
| 1 | 3 | $(-2T-1)/(T-1)$ | 43 |
| 2 | 1 | $(-T^2+T+1)/(T-1)^2$ | 40 |
| 3 | 1 | $(T^2-T-1)/(T-1)^3$ | 18 |
| 2 | 3 | $(2T+1)/(T-1)^2$ | 6 |

# 5 N=6

## 5.1 E=6

Table 16: Quivers with 6 Vertices and 6 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 5.2 E=7

Table 17: Quivers with 6 Vertices and 7 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 110 |
| 1 | 1 | $-1/(T-1)$ | 15 |

## 5.3 E=8

Table 18: Quivers with 6 Vertices and 8 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 7151 |
| 1 | 1 | $-1/(T-1)$ | 2032 |
| 2 | 1 | $(T-1)^{-2}$ | 416 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 14 |
| 1 | 2 | $(-T-1)/(T-1)$ | 7 |

## 5.4 E=9

Table 19: Quivers with 6 Vertices and 9 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | $1$ | 37635 |
| 1 | 1 | $-1/(T-1)$ | 27474 |
| 2 | 1 | $(T-1)^{-2}$ | 11506 |
| 3 | 1 | $-1/(T-1)^3$ | 1693 |
| 1 | 2 | $(-T-1)/(T-1)$ | 777 |
| 0 | 2 | $T+1$ | 651 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 241 |
| 3 | 2 | $(-T-1)/(T-1)^3$ | 92 |
| 1 | 3 | $(-2T-1)/(T-1)$ | 44 |
| 2 | 1 | $(-T^2+T+1)/(T-1)^2$ | 42 |
| 3 | 1 | $(T^2-T-1)/(T-1)^3$ | 22 |
| 2 | 3 | $(2T+1)/(T-1)^2$ | 10 |
| 3 | 2 | $(T^2-2T-1)/(T-1)^3$ | 3 |

# 6 N=7

## 6.1 E=7

Table 20: Quivers with 7 Vertices and 7 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 6.2 E=8

Table 21: Quivers with 7 Vertices and 8 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 160 |
| 1 | 1 | $-1/(T-1)$ | 25 |

## 6.3 E=9

Table 22: Quivers with 7 Vertices and 9 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 11051 |
| 1 | 1 | $-1/(T-1)$ | 2783 |
| 2 | 1 | $(T-1)^{-2}$ | 508 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 12 |
| 1 | 2 | $(-T-1)/(T-1)$ | 6 |

# 7 N=8

## 7.1 E=8

Table 23: Quivers with 8 Vertices and 8 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 7.2 E=9

Table 24: Quivers with 8 Vertices and 9 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 160 |
| 1 | 1 | $-1/(T-1)$ | 25 |

## 7.3 E=10

Table 25: Quivers with 8 Vertices and 10 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 16837 |
| 1 | 1 | $-1/(T-1)$ | 4604 |
| 2 | 1 | $(T-1)^{-2}$ | 796 |
| 1 | 2 | $(-T-1)/(T-1)$ | 30 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 18 |

# 8 N=9

## 8.1 E=9

Table 26: Quivers with 9 Vertices and 9 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 8.2 E=10

Table 27: Quivers with 9 Vertices and 10 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 210 |
| 1 | 1 | $-1/(T-1)$ | 35 |

## 8.3 E=11

Table 28: Quivers with 9 Vertices and 11 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 23314 |
| 1 | 1 | $-1/(T-1)$ | 6319 |
| 2 | 1 | $(T-1)^{-2}$ | 966 |
| 1 | 2 | $(-T-1)/(T-1)$ | 32 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 14 |

# 9 N=10

## 9.1 E=10

Table 29: Quivers with 10 Vertices and 10 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 5 |

## 9.2 E=11

Table 30: Quivers with 10 Vertices and 11 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 210 |
| 1 | 1 | $-1/(T-1)$ | 35 |

## 9.3 E=12

Table 31: Quivers with 10 Vertices and 12 Edges

| Dimension | Degree | Hilbert Series | Count |
|---|---|---|---|
| 0 | 1 | 1 | 33328 |
| 1 | 1 | $-1/(T-1)$ | 9416 |
| 2 | 1 | $(T-1)^{-2}$ | 1366 |
| 1 | 2 | $(-T-1)/(T-1)$ | 54 |
| 2 | 2 | $(T+1)/(T-1)^2$ | 26 |