## The result of the toss of a coin

$$\theta(\tau) = \omega \tau = \frac{2\omega \nu}{g}$$

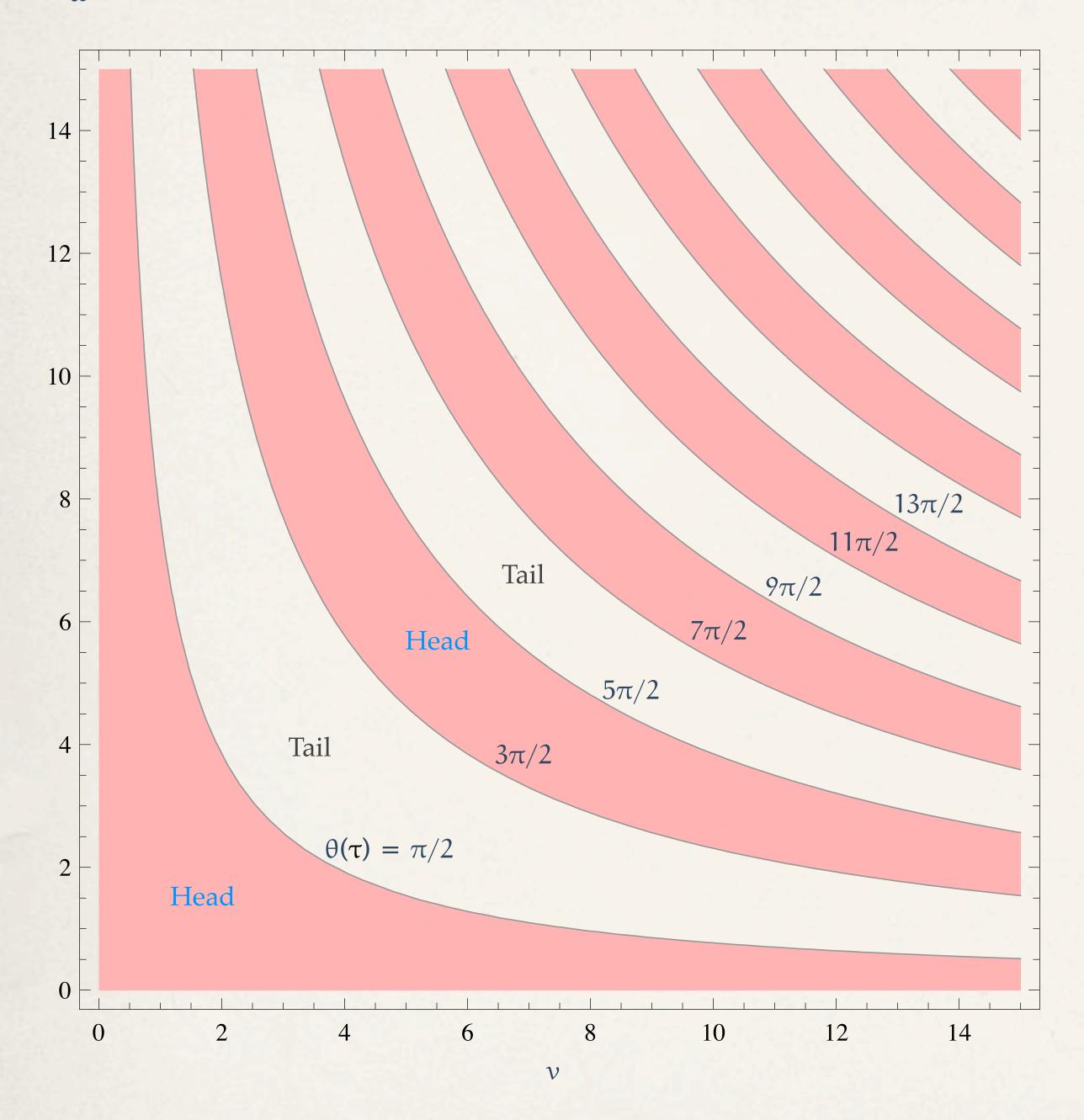
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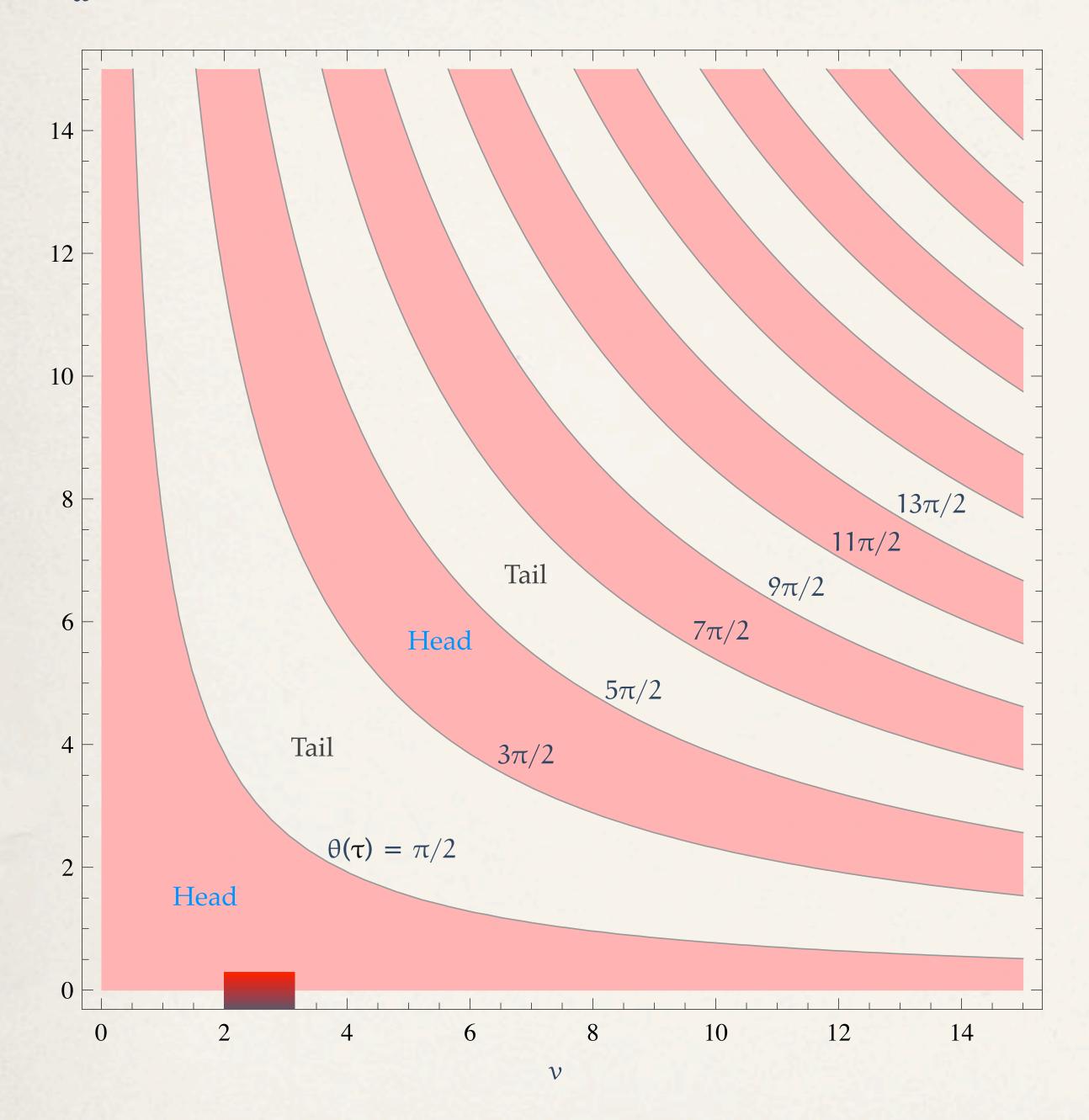
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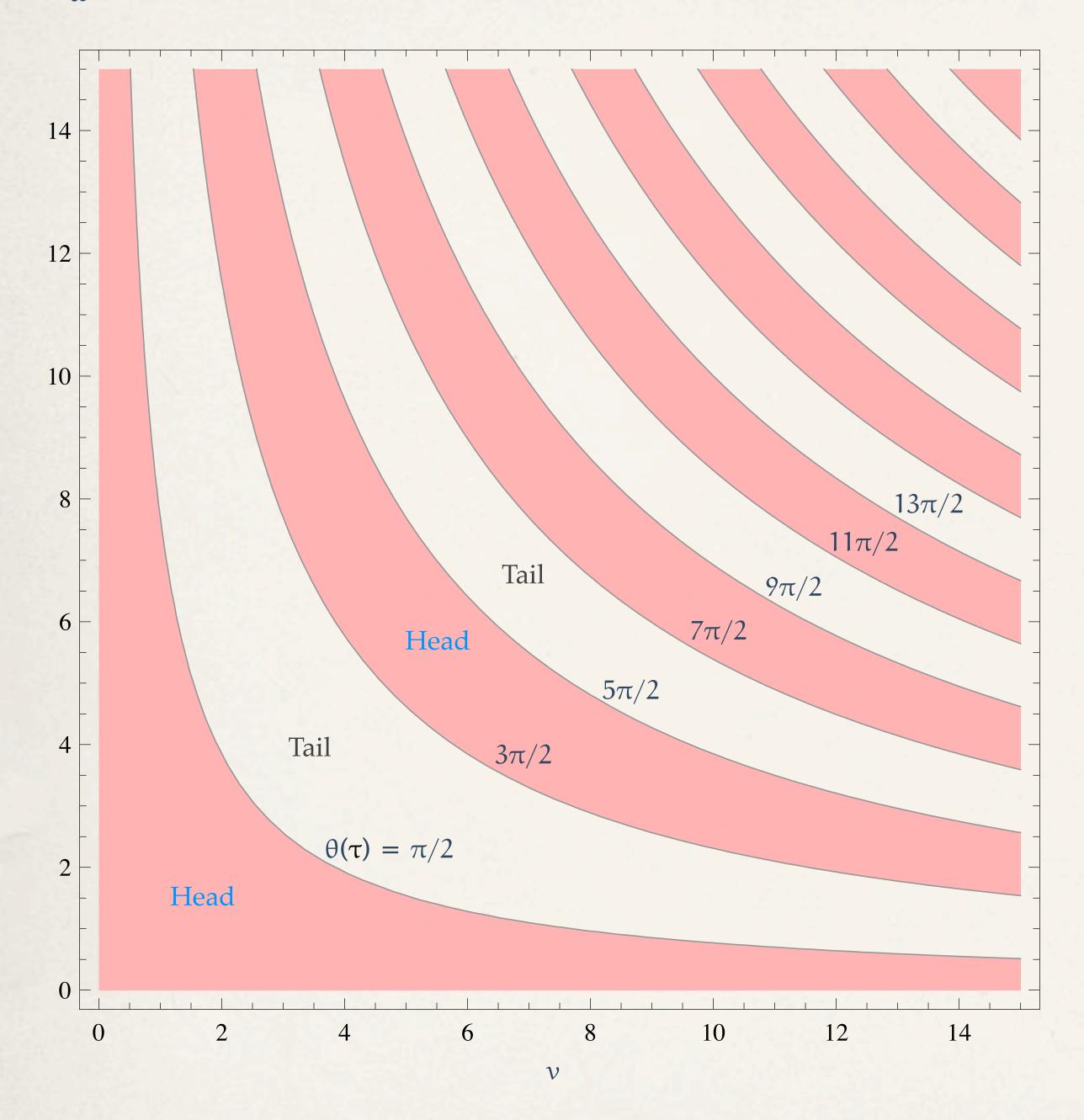
Regions governed by the equations:

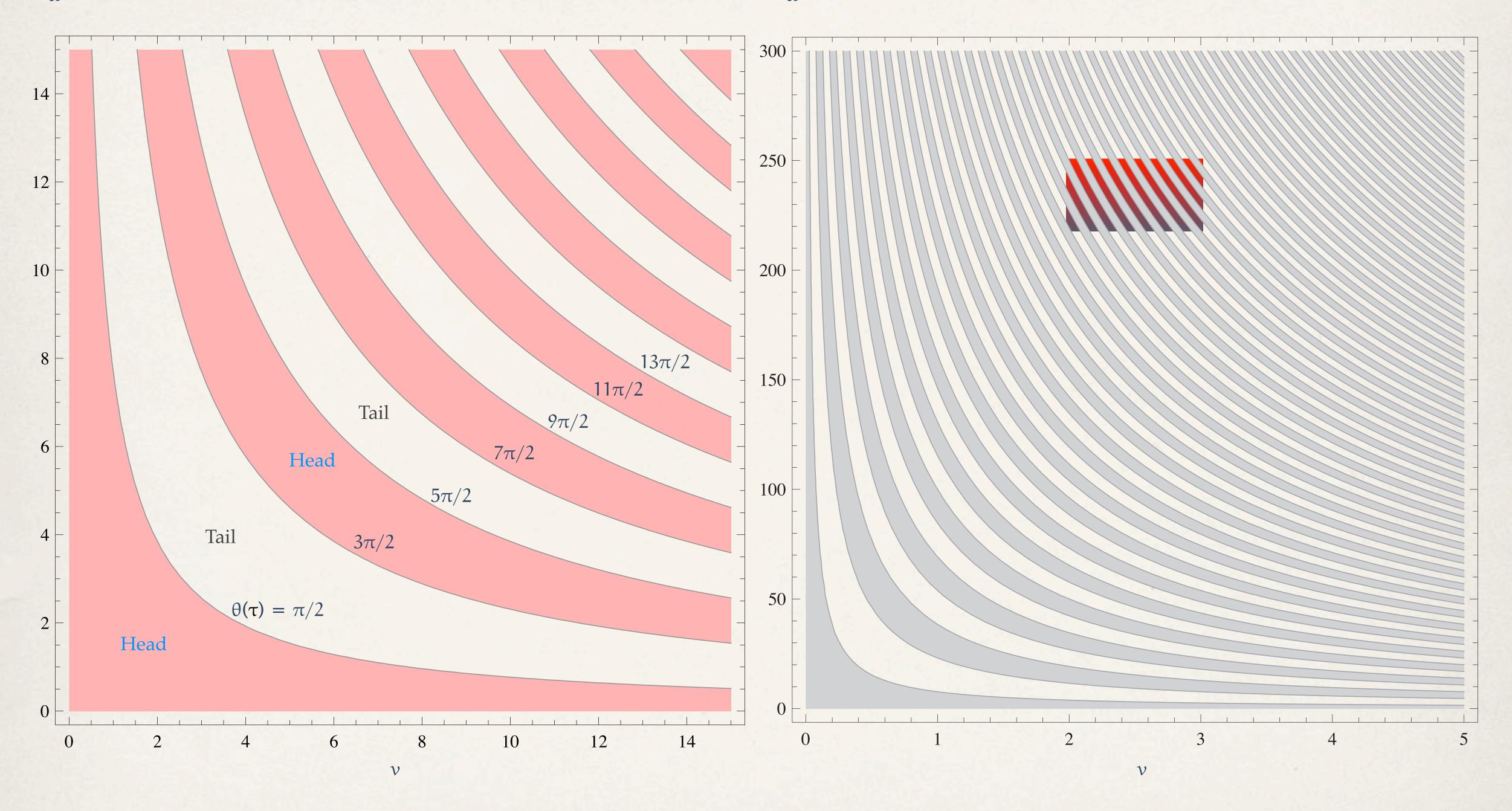
$$\theta(\tau) = \frac{\pi}{2}, \ \frac{3\pi}{2}, \ \frac{5\pi}{2}, \ \frac{7\pi}{2}, \dots$$

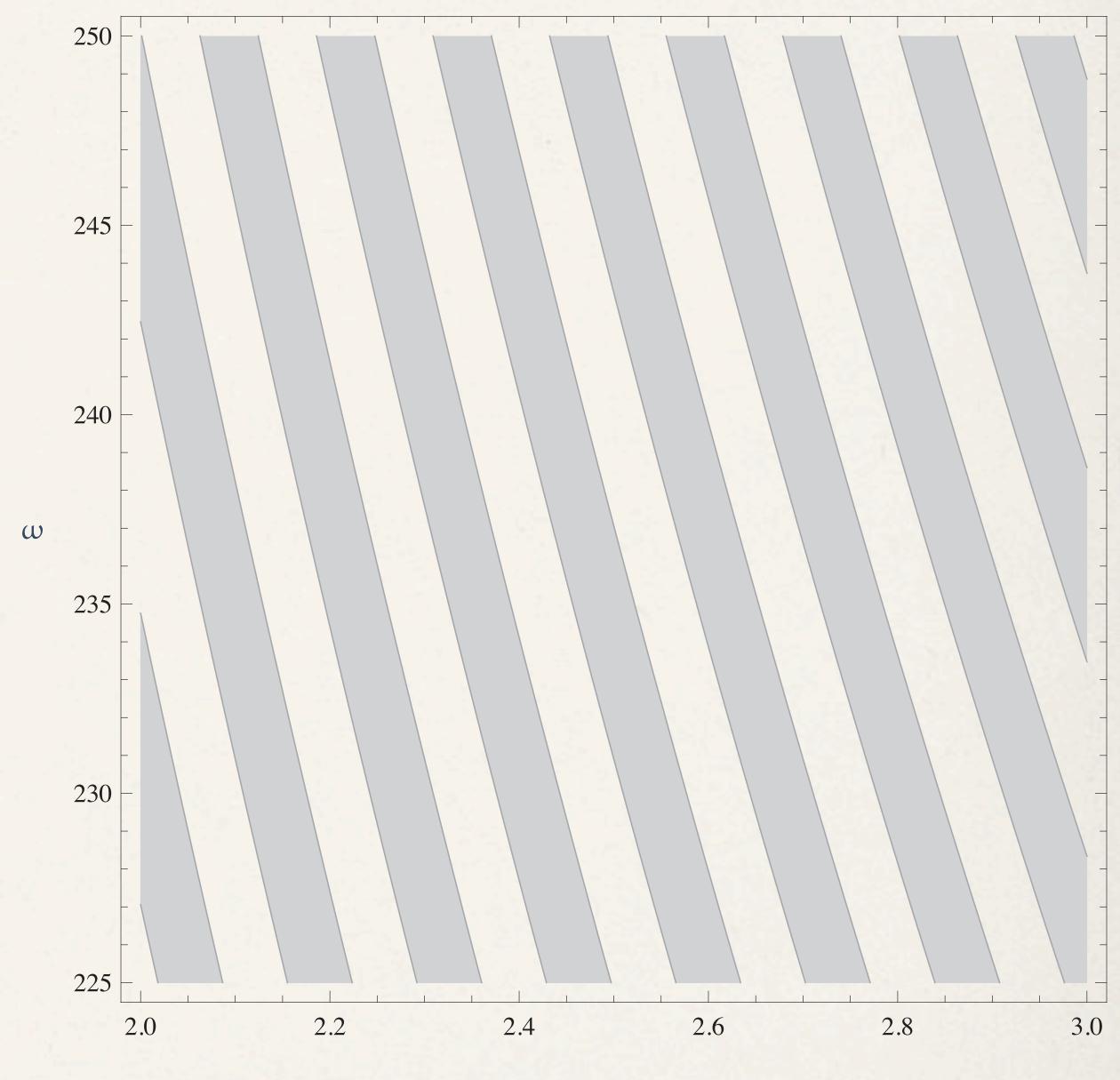
$$\omega v = \frac{\pi g}{4}, \ \frac{3\pi g}{4}, \ \frac{5\pi g}{4}, \ \frac{7\pi g}{4}, \dots$$

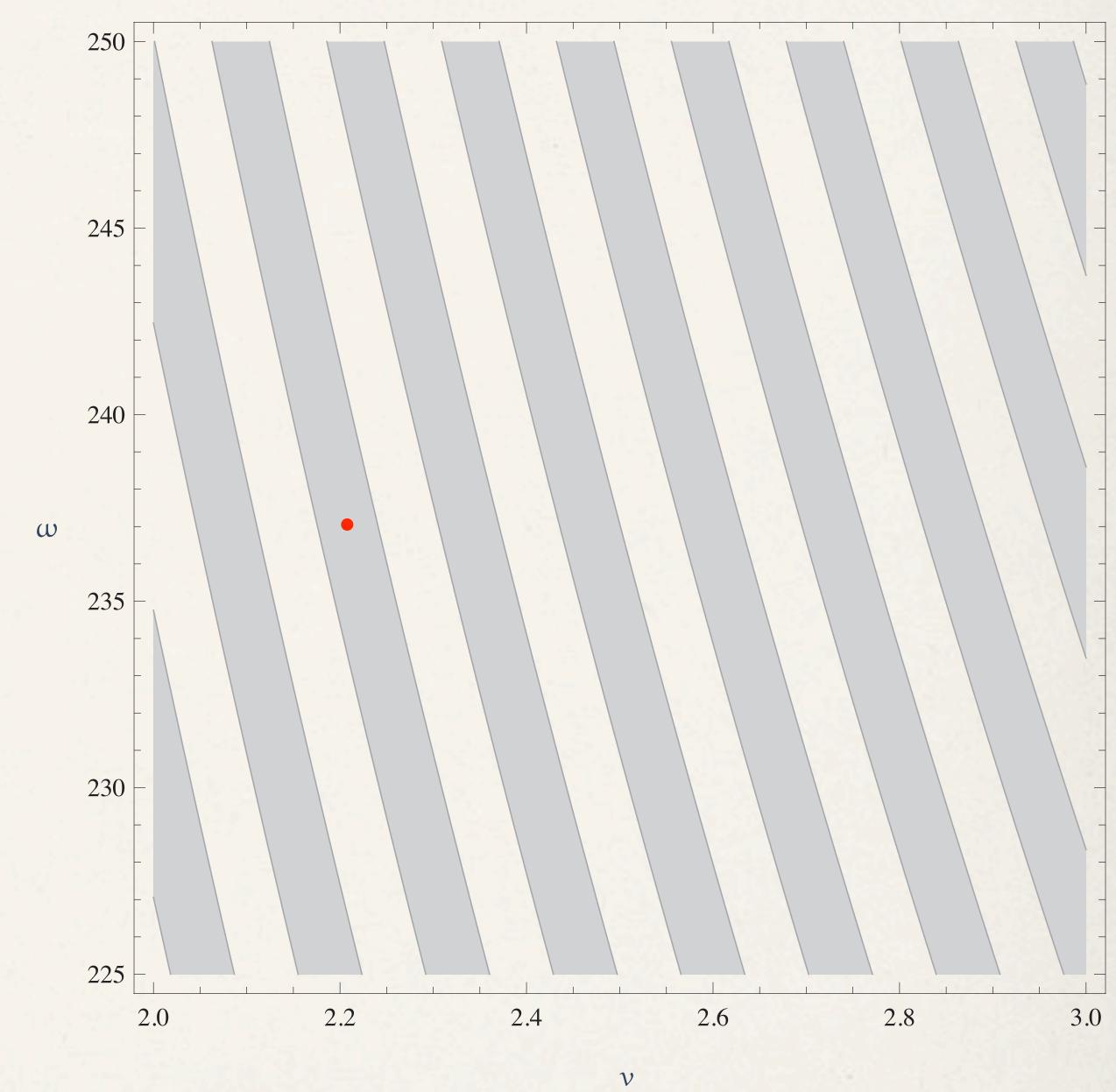


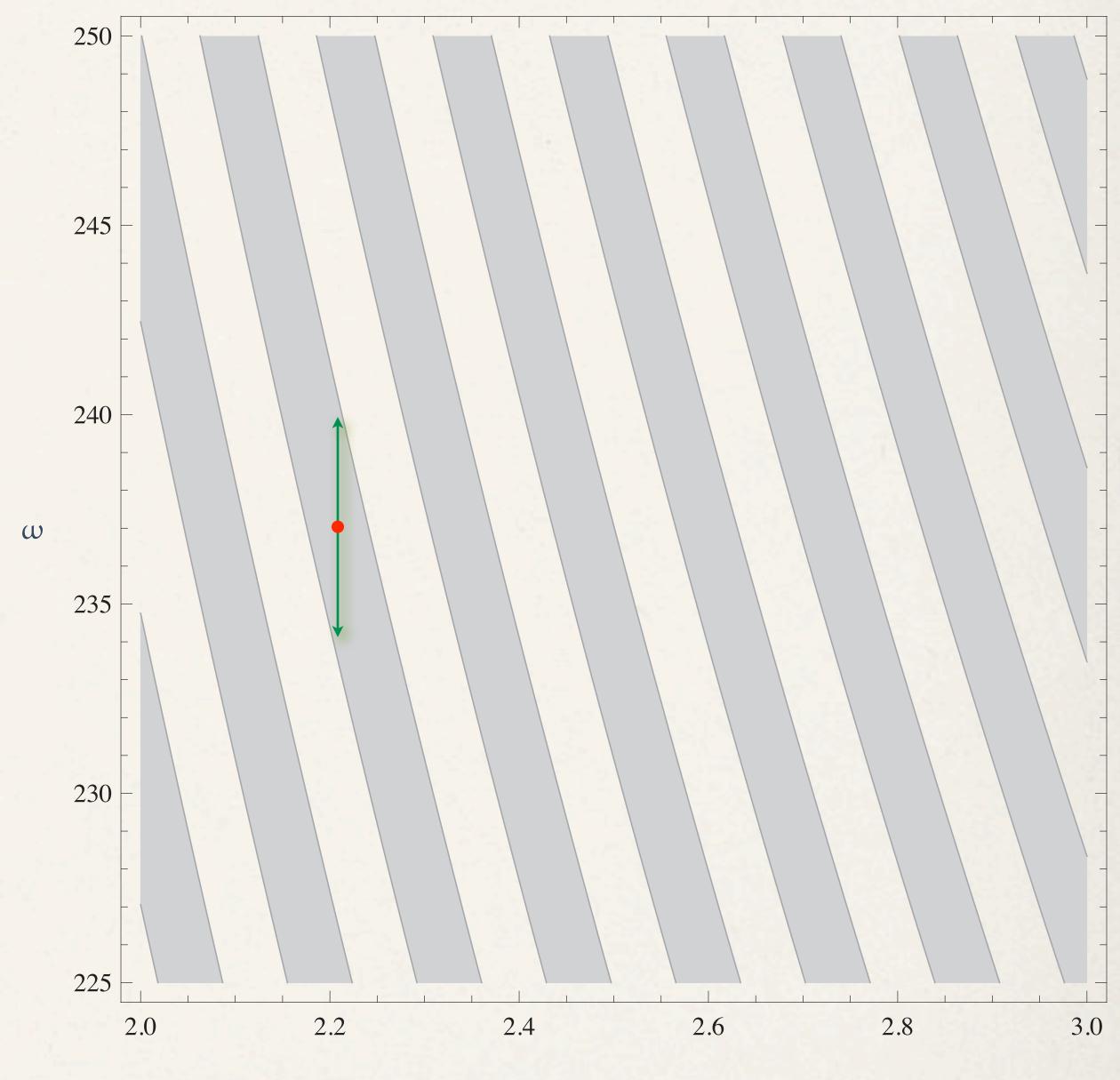


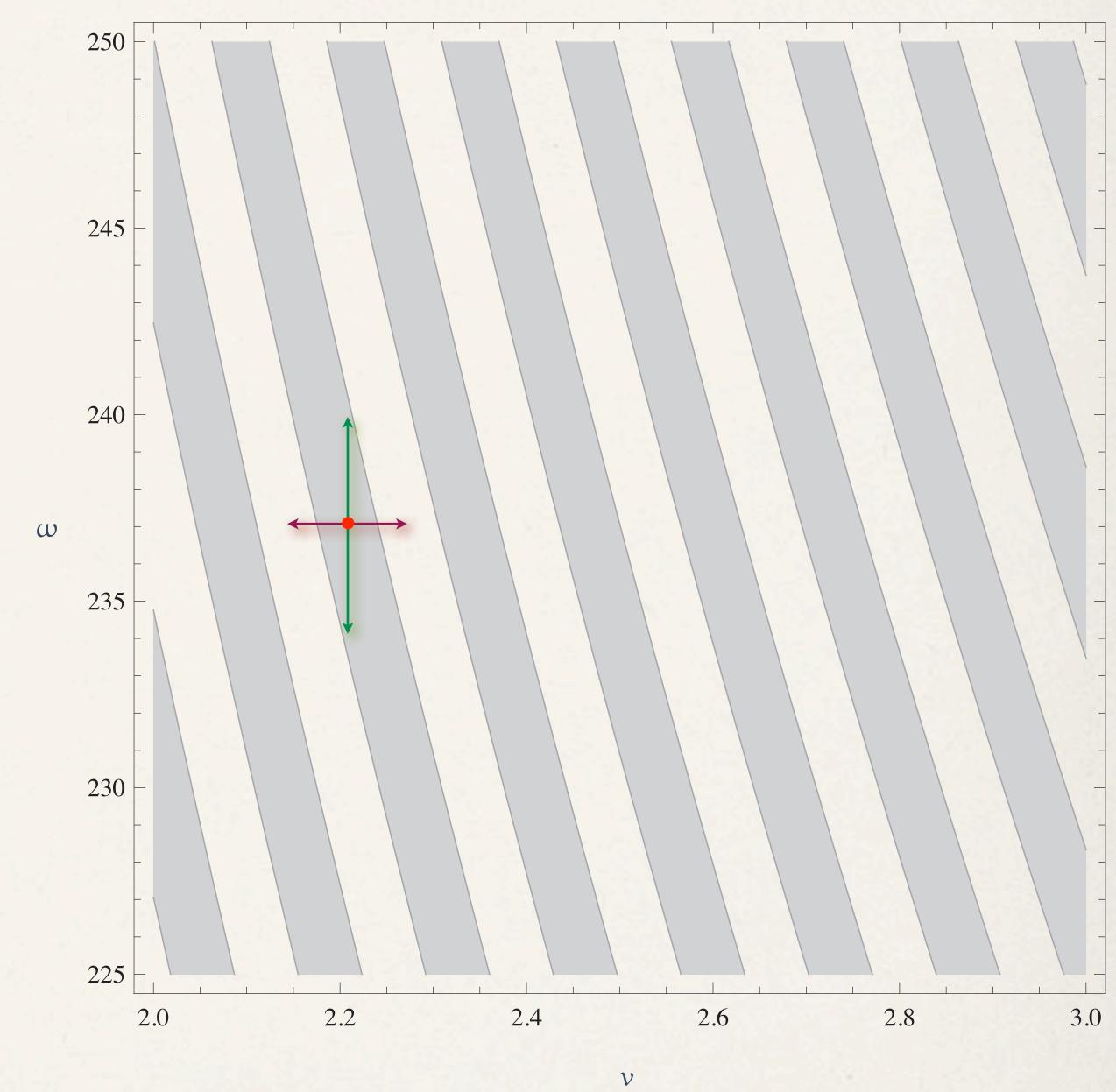






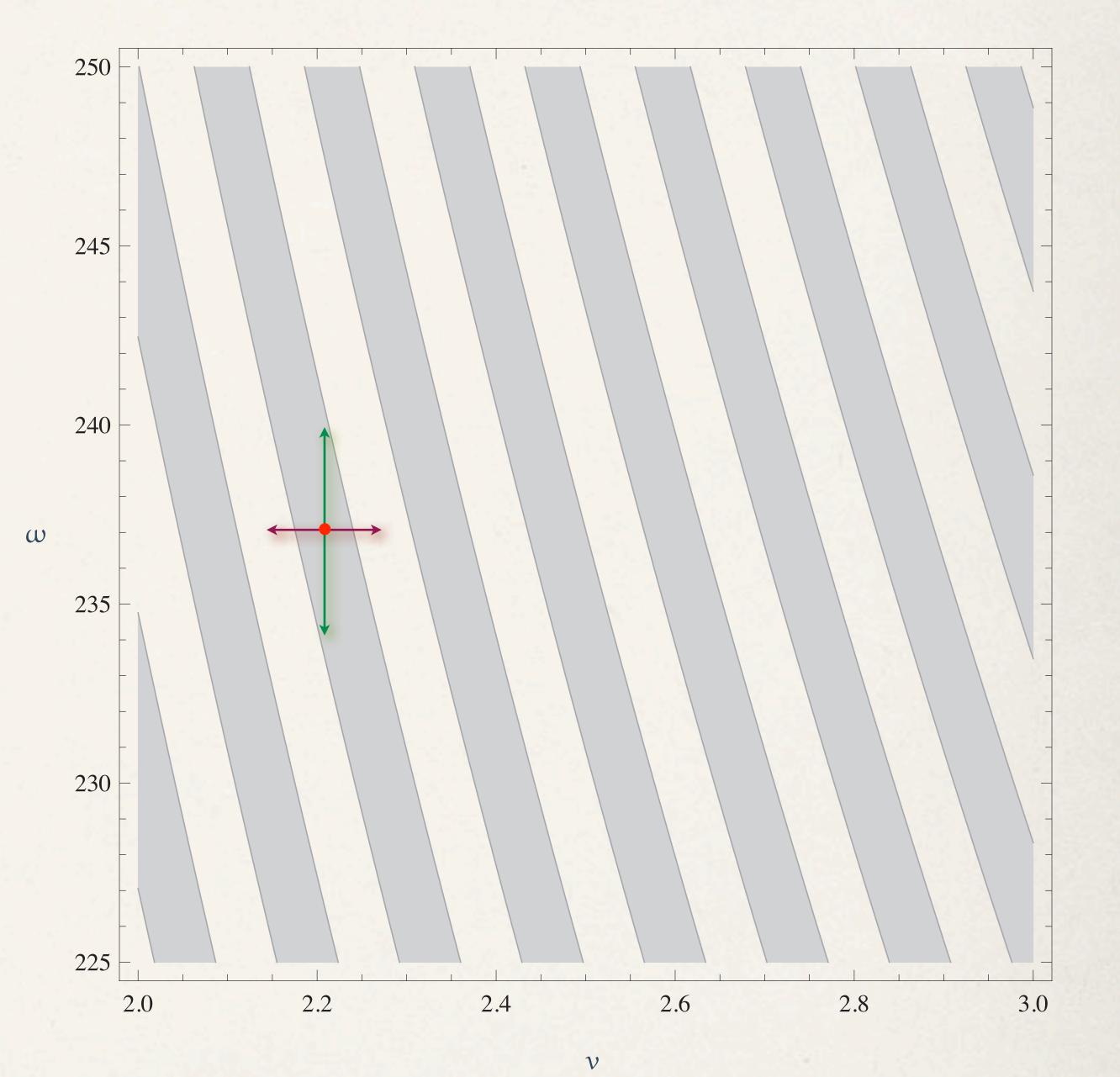






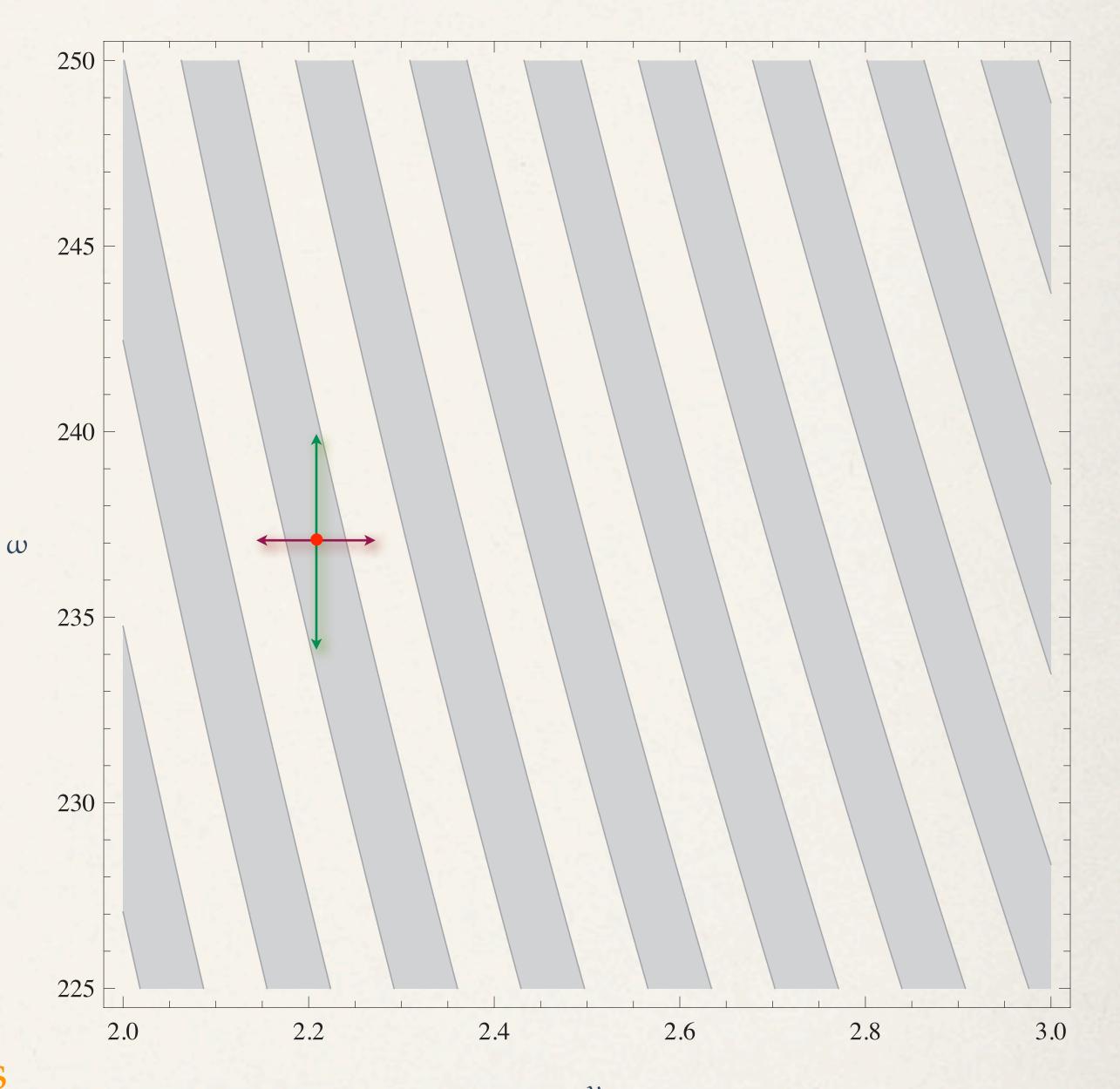
## The outcome of the coin toss is:

- Insensitive to small changes in angular velocity ω.
- Very sensitive to small changes in velocity  $\nu$ .



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A small uncertainty in velocity implies that heads and tails occur in roughly equal proportion.