

# Quiz 6

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## 1 Introduction

### Two main equation to derive Kalman Filter

(1) The first assumption is that the probability of the next state must be a linear function with additive noise:

$$x_t = A_t x_{t-1} + B_t u_t + \epsilon_t$$

(2) The probability measurement  $p(z_t|x_t)$  also have additive Gaussian noise

$$z_t = C_t x_t + n_t$$

## 2 References

Advance Robotics Fall 2012, University of California at Berkeley.