

$$u_{\text{ellipsoid}}(d) = \sqrt[2]{\text{eig}(I(d)^{-1})} \quad (5.10)$$

### 5.2.2 Simulation Results

All the concepts and notions before mentioned were applied in a simulated series of scenarios, where it is attempted to take conclusions about optimal positioning of the sensors for performance improvement. As such, the conditions of the simulation as well as the results of the study are hereinafter explained.

As mentioned before, the key to evaluate the performance when adopting this method is to analyze the determinant of the inverted FIM or, alternatively, the matrix's eigenvalues.

... Layout some results ...

Ideias:

1—

- tabela que para cada posição de 4 hidrofones, indica:
- raio de incerteza maximo e posição no espaço onde ocorreu
- raio de incerteza minimo e posição no espaço onde ocorreu
- desvio padrao de todos os pontos no espaço
- uncertainty ellipsoid

2—

plot do raio de incerteza para todas as posições no espaço de uma certa configuração

#### 5.2.2.1 Conclusions