

The remit of the team
Problem
Strictly does not need to
help the competition.
Mainly embedded

Modest goals
Ideal goals
A very difficult environment
would be a hall of people in
RoboCup.

Machine-learning and
binaural
Explain the methods briefly

Intuitive and naive

Similar to convolution
Peak
Complexity is N^2
FFT can simplify to $N\log(N)$
PHAT can improve

The sample period
Peak at zero

One of the few examples
that can estimate distance
Some other techniques
Paper says that it is
reasonably accurate

Traditional
Steering
Cross-correlations can be
used.
Spatial filter
Directions, Multiple signals

SRP-PHAT
Grid
Particle filter
Fine grid
Errors

Not considered much
Subspaces
Kinds
Resolution and computation

Decomposition
Subspaces
Similar to beamforming

Quick example
Real-time

Equations

Iterative algorithm

Not very good since it tends to fail a lot

Full coordinates

GCC-PHAT problem

Grid

Only a coarse grid is used

Resolution is affected

Around 30 papers considered.

Had not had as much simulations as hoped.

In winter, the simulations will be done.

Choose a method.

Realistic environment.

In the next semester, the designing and testing will be done.

Electronics

Software

Testing, Robotics context