# AUTOENCODER

* 9 layers encoder part
* Speed up training efficiency

# CNN models – performance

* Adding pr increases accuracy: average MSE lower with pr
* Graphs are from loss function on test set

# Double encoder schema

* Initially, the sequence of frames will be processed by CNN part to extract features.
* After that, the features are combined into a vector and fed to the img-encoder (LSTM part).
* The pitch and roll sequence is fed separately to the PR-encoder (LSTM part).
* One latent vector is generated and decoded by decoder (LSTM part).
* The output is a predicted sequence of pitch and roll.

# Enkele encoder schema

* complexity of the previous model, combine imgencoder and PR-encoder in one encoder element

# Volgende schema

* Same as last but no additional info PR is used,

# Last model

* A modification of a previous model.
* Combine all LSTM elements into one to :
  + reduce the parameters of the model
  + check the efficiency of this configuration
  + Reduce memory resources

# LSTM models - performance

* **Baseline**: worst performing model
* **Green**: best perfoming models
* Used for criteria

# LSTM models - performance

* MSE roll and Pitch separately
* Lower then CNN models
* Pitch harder to predict

# Denormalized results

* Max 90 degrees So good results

# Convergence

* First models bad convergence
* Training data loss function
* Average test MSE