

## Accepted Manuscript

Modeling human target reaching with an adaptive observer  
implemented with dynamic neural fields

Farzaneh S. Fard, Paul Hollensen, Dietmar Heinke, Thomas P.  
Trappenberg

PII: S0893-6080(15)00201-4

DOI: <http://dx.doi.org/10.1016/j.neunet.2015.10.003>

Reference: NN 3541

To appear in: *Neural Networks*



Please cite this article as: Fard, F. S., Hollensen, P., Heinke, D., & Trappenberg, T. P.  
Modeling human target reaching with an adaptive observer implemented with dynamic neural  
fields. *Neural Networks* (2015), <http://dx.doi.org/10.1016/j.neunet.2015.10.003>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a  
service to our customers we are providing this early version of the manuscript. The manuscript  
will undergo copyediting, typesetting, and review of the resulting proof before it is published in  
its final form. Please note that during the production process errors may be discovered which  
could affect the content, and all legal disclaimers that apply to the journal pertain.

## Highlights

---

---

- We developed an internal model for arm control in the neural field framework.
- After learning the model can point to a target without sensory feedback.
- The robot learns to move in arbitrary directions from few examples.
- The model adapts to changing forces on the motors and delays in the system.
- All movements have a bell shaped velocity profile, consistent with human behavior

Download English Version:

<https://daneshyari.com/en/article/6863263>

Download Persian Version:

<https://daneshyari.com/article/6863263>

[Daneshyari.com](https://daneshyari.com)