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Literatur: Chaos in neuronalen Netzen.

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Natur

In den letzten Jahren hat die wissenschaftliche Untersuchung des deterministischen Chaos von neuronalen Netzwerken (*Chaos in Brain*) sehr deutliche Fortschritte gemacht. Dazu gehören insbesondere auch die Untersuchung der fraktalen Eigenschaften d(ies)er nichtlinearen biologischen Systeme.

In der internationalen UseNET Newsgruppe ***sci.nonlinear*** wurde von Nutzern der Versuch unternommen, aktuelle Literatur zu diesem Gebiet zusammenzustellen. Da viele Wissenschaftler die Diskussionen dieses weltweiten Diskussionsforums (noch) nicht verfolgen (können), wird in diesem Merkblatt der derzeitige Stand dieser kooperativen Literaturrecherche zusammengestellt.

In der Arbeit von T. Elbert et. al. (1994) findet man außerdem ein ausführliches und weiterführendes Literaturverzeichnis. Grundlegende Informationen zu den fraktalen Eigenschaften der Natur (fraktale Dimensionen) wurden bereits in den wdv-notes Nr. 88, 148, 176 und 177 dargestellt.

Informationen zur Benutzung des internationalen UseNets vom HAIRcluster findet man in den wdv-notes Nr. 79. Ein Verzeichnis der aktiven biomedizinischen News-Gruppen ist in den wdv-notes Nr. 276 veröffentlicht worden.

Die 4. Edition wurde u. a. um weitere FTP-Server (wdv-notes Nr. 26) ergänzt, von denen über das Internet elektronisch publizierte Arbeiten und Software gratis bezogen werden können.

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File Services for Nonlinear Sciences

There are several fine ftp servers on the Internet carrying a lot of relevant papers on the "Chaos in Brain" and other nonlinear science issues, e.g. software for analysing datas. There is an excellent nonlinear bibliography at the Johannes Gutenberg University of Mainz, Germany holding about 6330 entries in BibTeX and/or REF style. This bibliography is regulary updated.

Server – Node	Directory	Remarks
• ftp•alumni•caltech•edu	/pub/ingber	EEG analysis.
• ftp•grumed•fu-berlin•de	/public/sci	Nonlinear sciences.
• ftp•uni-mainz•de	/pub/chaos	NL Bibliography.
• lyapunov•ucsd•edu	/pub	Nonlinear analysis.
• macomb•tn•cornell•edu	/pub/dstool	Home of "dstool".
• macomb•tn•cornell•edu	/pub/kaos	Home of "kaos".
• princeton•edu	/pub/harnad	EEG chaos.

World Wide Web servers (WWW) on those topics are established as well on the Internet:

- http://www•prairienet•org/business/ptech/…
- http://www•uni-mainz•de/FB/Physik/Chaos/…

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