

کاربردهای رویکرد مدلسازی

مبثنی بر عامل:

نرم افزارها و جعبه ابزارها





ابزارهای عمومی مدلسازی شامل نرم افزارهای محاسباتی ریاضی:

- Matlab
- Mathematica

زبان های برنامه نویسی

- Java
- C++
- Python



نرم افزارهای مخصوص مدلسازی مبتنی بر عامل

- Netlogo
- Repast
- Anylogic

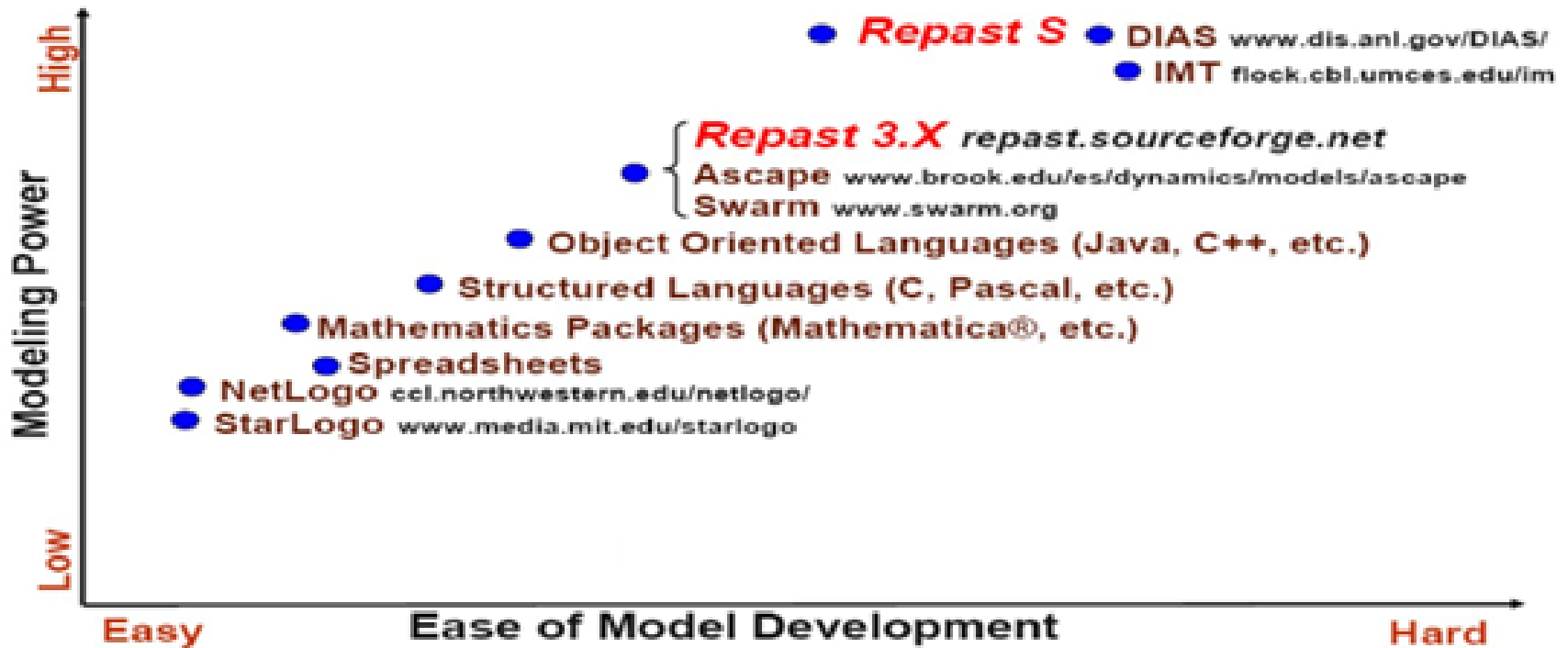
جعبه ابزارهای مدلسازی مبتنی بر عامل

- JASMIN (<http://www.jas-mine.net/>)
- SeSAm (Shell for Simulated Agent Systems)
- MASON (<https://cs.gmu.edu/~eclab/projects/mason/>)
- GAMA (<https://gama-platform.github.io/>)

نرم افزارها و جعبه ابزارها ، کاربردها



نمودار زیر قدرت نرم افزارها و سهولت اجرای آنها را نشان می دهد



منبع: مکال و نورث، ۲۰۰۶



NetLogo



- [Home](#)
- [Download](#)
- [Help](#)
- [Resources](#)
- [Extensions](#)
- [FAQ](#)
- [References](#)
- [Contact Us](#)
- [Donate](#)

- Models:
- [Library](#)
 - [Community](#)
 - [Modeling Commons](#)

- User Manuals:
- [Web](#)
 - [Printable](#)
 - [Chinese](#)
 - [Czech](#)
 - [Japanese](#)
 - Spanish
 - [\(intro\)](#)
 - [\(tutorial #1\)](#) [\(#2\)](#) [\(#3\)](#)
 - [\(guide\)](#)
 - [\(dictionary\)](#)

Donate

NetLogo is a multi-agent programmable modeling environment. It is used by many tens of thousands of students, teachers and researchers worldwide. It also powers [HubNet](#) participatory simulations. It is authored by [Uri Wilensky](#) and developed at the [CCL](#). You can download it free of charge. You can also try it online through [NetLogo Web](#).

What can you do with NetLogo? Read more [here](#). Click [here](#) to watch videos.

Join mailing lists [here](#).

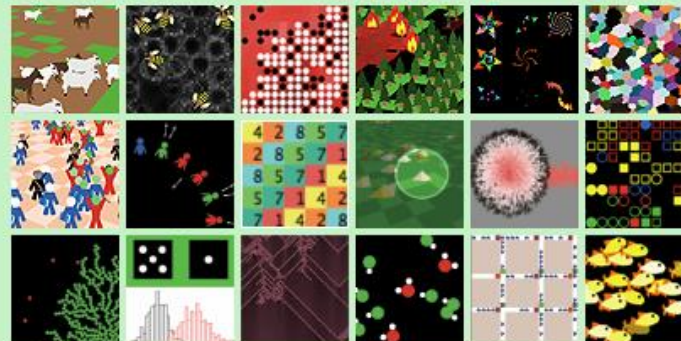
Download NetLogo



Go to NetLogo Web



NetLogo comes with a large library of sample models. Click on some examples below.





NetLogo



[Home](#)
[Download](#)
[Help](#)
[Resources](#)
[Extensions](#)
[FAQ](#)
[References](#)
[Contact Us](#)
[Donate](#)

Models:
[Library](#)
[Community](#)
[Modeling Commons](#)

User Manuals:
[Web](#)
[Printable](#)
[Chinese](#)
[Czech](#)
[Japanese](#)

Spanish
([intro](#))
([tutorial #1](#)) ([#2](#)) ([#3](#))
([guide](#))
([dictionary](#))

Donate

NetLogo Models Library

If you [download](#) NetLogo, all of the models in the models library are included. You may also run the models here, in your browser.

Sample Models are the most carefully checked models we have. They are intended to be examples of good coding and documentation practice. Models marked "unverified" are also complete and functional, but are still in the process of being reviewed for content, accuracy, and quality of code.

Curricular Models are associated with curricula developed at the CCL. They may also appear, sometimes in a slightly different form, in Sample Models. For information on the curricula, see the [CCL home page](#).

HubNet Activities are for use with our HubNet participatory simulation architecture.

["NetLogo User Community Models"](#) are models contributed from the user community to be shared with other NetLogo users. They are not included with NetLogo, but are available on the web.

How to Contribute and/or share your models

We encourage users to share your models with the [NetLogo user community](#). Contributed models will be credited to the author. You may now [upload your models](#) through our web site. The web site will automatically create a web page for your model. If you wish to do so, try our [NetLogo Model Upload Page](#). We have also added a URL submission page, if you prefer to host the model yourself, [Model URL Submission Page](#)

You may also wish to [send us your models](#) for possible inclusion in the Models Library.

Separately, you can also upload, share, and collaboratively build models to the new [NetLogo Modeling Commons](#).



The Repast Suite

The Repast Suite is a family of advanced, free, and open source agent-based modeling and simulation platforms that have been under continuous development for over 15 years:

[Repast Symphony 2.6](#), released on *20 November 2018*, is a richly interactive and easy to learn Java-based modeling system that is designed for use on workstations and small computing clusters.

[Repast for High Performance Computing 2.3.0](#), released on *26 November 2018*, is a lean and expert-focused C++-based modeling system that is designed for use on large computing clusters and supercomputers.

Learn Repast using the [Repast Tutorials](#).

Watch the Repast team discuss the present and future of ABM as part of the [CoMSES 2018 Virtual Conference](#):

نرم افزارها و جعبه ابزارها ، کاربردها



→ X Home | <https://www.anylogic.com/resources/articles/agent-base> | 110% | Search | st Visited | Getting Started | Web Slice Gallery | Google Translate | بانک دی - ایران پوشه | speakglobalenglish.com | abcasiapacific.com | اطلاع رسانی آماری | Pakistan Map / Geogr...



DOWNLOAD

← BACK TO PAPERS



Agent-based Modeling and Simulation

Charles M. Macal, Michael J. North. 2009 Winter Simulation Conference (WSC'09), December 13-16, Austin, TX, USA

science and education

supply chain management

agent based modeling

Agent-based modeling and *simulation* (ABMS) is a new approach to modeling systems comprised of autonomous, interacting agents. Computational advances have made possible a growing number of agent-based models across a variety of application domains. Applications range from modeling agent behavior in the **stock market**, *supply chains*, and consumer markets, to predicting the spread of epidemics, mitigating the threat of bio-warfare, and understanding the factors that may be responsible for the fall of ancient civilizations. Such progress suggests the potential of ABMS to have far-reaching effects on the way that businesses use computers to support decision-making and research processes.

- application area
 - manufacturing processes [19]
 - supply chain management [21]
 - business processes [29]
 - strategic management [13]
 - market modeling [8]
 - management [24]
 - freight traffic modeling [10]
 - labour market [4]
 - epidemiology simulation [10]
 - communication networks [2]
 - personnel [3]
 - marketing [8]
 - asset management [3]
- industry
 - technology [41]
 - healthcare [47]
 - industrial products [11]
 - military, defense, safety [8]



- مدلسازی فرآیندهای پویایی جمعیت
- بررسی اثر اطلاعات بازیگران بر قیمت در انواع حراج
- مدلسازی مبتنی بر عامل در رفتار سرمایه گذاران در بازارهای مالی
- بررسی نقش عدم تقارن اطلاعات سرمایه گذاران در شکل گیری قیمت ها و نوسانات در بازار بورس
- پیش بینی تقاضای انرژی خودروها با استفاده از رویکرد مبتنی بر عامل
- بررسی تبانی در رفتار متقابل شرکت های تولید و توزیع
- شبیه سازی دوره های رونق و رکود بازار مسکن با توجه به مکانیسم های اجتماعی و اقتصادی



- Modeling the Size of Wars
- Modeling Civil Violence: An Agent-Based Computational Approach
- A systems approach to healthcare: Agent-based modeling, community mental health, and population well-being
- Agent-based computational modelling and macroeconomics
- An agent-based test bed study of wholesale power market performance measures
- **Innovation in industrial districts: An agent-based simulation model**



- Agent-based modelling for ecological economics:
A case study
- An Agent-Based Model to Forecast the Inflation
Rate in the Eurozone
- Agent-based model for optimising supply-chain
configurations
- Agent based model of a simple economy