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## 知识图谱（Knowledge Graph）专知 荟萃

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# 入门学习

1. 大规模知识图谱技术 王昊奋 华东理工大学

<http://history.ccf.org.cn/sites/ccf/xhdttry.jsp?contentId=2794147245202>

<https://pan.baidu.com/s/1i5w2RcD>

2. 知识图谱技术原理介绍 王昊奋

<http://www.36dsj.com/archives/39306>

3. 大规模知识图谱的表示学习及其应用 刘知远

<http://www.cipsc.org.cn/kg3/>

4. 知识图谱的知识表现方法回顾与展望 鲍捷

<http://www.cipsc.org.cn/kg3/>

5. 基于翻译模型(Trans 系列)的知识表示学习 paperweekly

[http://www.sohu.com/a/116866488\\_465975](http://www.sohu.com/a/116866488_465975)

6. 中文知识图谱构建方法研究 1, 2, 3

<http://blog.csdn.net/zhangqiang1104/article/details/50212227>

<http://blog.csdn.net/zhangqiang1104/article/details/50212261>

<http://blog.csdn.net/zhangqiang1104/article/details/50212341>

7. TransE 算法 (Translating Embedding)

<http://blog.csdn.net/u011274209/article/details/50991385>

8. OpenKE 刘知远 清华大学 知识表示学习 (Knowledge Embedding) 旨在将知识图谱中实体与关系嵌入到低维向量空间中, 有效提升知识计算效率。

<http://openke.thunlp.org/>

9. 面向大规模知识图谱的表示学习技术 刘知远

<http://www.cbdio.com/BigData/2016-03/03/content4675344.htm>

10. 当知识图谱“遇见”深度学习 肖仰华

<http://caai.cn/index.php?s=/Home/Article/qikandetail/year/2017/month/04.html>

1. NLP 与知识图谱的对接 白硕

<http://caai.cn/index.php?s=/Home/Article/qikandetail/year/2017/month/04.html>

1. 最全知识图谱综述#1: 概念以及构建技术 专知
  - <http://mp.weixin.qq.com/s/bhk6iZdphif74HJlyUZOBQ>
2. 最全知识图谱综述#2: 构建技术与典型应用 专知
  - <https://mp.weixin.qq.com/s/j1ubexp-T7kk7snHs4eYw>

## 进阶论文

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<https://www.researchgate.net/publication/230854809PrinciplesofSemanticNetworksExplorationintheRepresentationofKnowledge>

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<http://www.anthology.aclweb.org/D/D14/D14-1200.pdf>

1. Li Q, Ji H. Incremental Joint Extraction of Entity Mentions and relations<sup>c</sup>// annual Meeting of the Association for Computational Linguistics. 2014:402-412.

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1. Kate R J, Mooney R J. Joint Entity and relation Extraction using card-pyramid Parsing<sup>c</sup>// C onference on C omputational N atural L anguage learning. 2010:203-212.

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1. Miwa M, Bansal M. End-to-End Relation Extraction using LSTMs on S equences and tree structures<sup>c</sup>// annual Meeting of the association for computational linguistics. 2016:1105-1116.

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1. brin s. Extracting Patterns and relations from the World Wide Web<sup>J</sup>. lecture notes in computer Science, 1998, 1590:172-183

[Extracting Patterns and relations from the World Wide Web](#)

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## Tutorial

1. 知识图谱导论 刘 康 韩先培  
<http://cips-upload.bj.bcebos.com/ccks2017/upload/CCKS2017V5.pdf>
2. 知识图谱构建 邹 磊 徐波  
<http://cips-upload.bj.bcebos.com/ccks2017/upload/zl.pdf>
3. 知识获取方法 劳 逆 邱锡鹏  
<http://cips-upload.bj.bcebos.com/ccks2017/upload/2017-ccks-Knowledge-Acquisition-.pdf>
4. 知识图谱实践 王昊奋 胡芳槐  
[http://www.ccck2017.com/?page\\_id=46](http://www.ccck2017.com/?page_id=46)
5. 知识图谱学习小组学习
  - 第一期 w1: 知识提取
  - 第一期 w2: 知识表示
  - 第一期 w3: 知识存储
  - 第一期 w4: 知识检索<https://github.com/memect/kg-beijing>
6. 深度学习与知识图谱 刘知远 韩先培 CCL2016  
<http://www.cips-cl.org/static/CCL2016/tutorialpdf/T2A%E7%9F%A5%E8%AF%86%E5%9B%BE%E8%B0%B1part3.pdf>

## 综述

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2. 知识图谱研究进展 漆桂林 2017  
[\[http://tie.istic.ac.cn/ch/reader/view\\_abstract.aspx?doi=10.3772/j.issn.2095-915x.2017.01.002\]](http://tie.istic.ac.cn/ch/reader/view_abstract.aspx?doi=10.3772/j.issn.2095-915x.2017.01.002)
3. 知识图谱技术综述 徐增林  
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4. 基于表示学习的知识库问答研究进展与展望 刘康  
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5. Knowledge Graph Refinement: A Survey of Approaches and Evaluation Methods  
Heiko Paulheim  
<http://www.semantic-web-journal.net/system/files/swj1167.pdf>

## 视频教程

1. Google 知识图谱系列教程 (1-21)  
- <https://www.youtube.com/watch?v=mmQl6VGvX-c&list=PLOU2XLYxmsII2vI-hzAyW6eouf62ur2Z2q>

## 代码

1. ComplEx @ <https://github.com/ttrouill/complex>
2. EbemKG @ <https://github.com/pminervini/ebemkg>
3. HolE @ <https://github.com/mnick/holographic-embeddings>
4. Inferbeddings @ <https://github.com/uclmr/inferbeddings>
5. KGE-LDA @ <https://github.com/yao8839836/KGE-LDA>
6. KR-EAR @ <https://github.com/thunlp/KR-EAR>

7. mFold @ <https://github.com/v-shinc/mFoldEmbedding>
8. ProjE @ <https://github.com/bxshi/ProjE>
9. RDF2Vec @ <http://data.dws.informatik.uni-mannheim.de/rdf2vec/code/>
10. Resource2Vec @ <https://github.com/AKSW/Resource2Vec/tree/master/resource2vec-core>
11. TranslatingModel @ <https://github.com/ZichaoHuang/TranslatingModel>
12. wiki2vec (for DBpedia only) @ <https://github.com/idio/wiki2vec>

## 领域专家

1. Antoine Bordes  
<https://research.fb.com/people/bordes-antoine/>
2. Estevam Rafael Hruschka Junior (Federal University of Sao Carlos)  
<http://www.cs.cmu.edu/~estevam/>
3. 鲍捷 (Memect)  
<http://baojie.org/blog/>
4. 陈华钧 (浙江大学)  
<http://mypage.zju.edu.cn/huajun>
5. 刘知远 (清华大学)  
<http://nlp.csai.tsinghua.edu.cn/~lzy/>
6. 秦兵 (哈尔滨工业大学)  
<https://m.weibo.cn/u/1880324342?sudaref=login.sina.com.cn&retcode=6102>
7. 赵军 (中科院自动化所)  
<http://www.nlpr.ia.ac.cn/cip/jzhao.htm>
8. 王昊奋 狗尾草智能科技有限公司  
<http://www.gowild.cn/home/ours/index.html>
9. 漆桂林 东南大学  
<http://cse.seu.edu.cn/people/qgl/index.htm>

10. 刘 康 中科院自动化

<http://peopleucas.ac.cn/~liukang>

11. 韩先培 中国科学院软件研究所

<http://www.icip.org.cn/Homepages/hanxianpei/index.htm>

12 肖仰华 复旦大学

<http://gdm.fudan.edu.cn/GDMWiki/Wiki.jsp?page=Yanghuaxiao>

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