# **参考文献**

Krauss, C. (2016). **STATISTICAL ARBITRAGE PAIRS TRADING STRATEGIES: REVIEW AND OUTLOOK.** *Journal of Economic Surveys*, 31(2), 513–545

看起来挺不错的比较新的综述，值得用于整体学习。研究被分为五组。距离方法使用非参数距离指标来识别配对交易机会。协整方法依靠正式的协整检验来揭开静止的价差时间序列。时间序列方法主要是为均值回复的价差寻找最佳交易规则。随机控制方法旨在确定相对于其他可用证券而言，在配对交易中的最佳投资组合持有量。最后，从市场摩擦的角度回顾了配对交易的盈利能力。从包括100多条参考文献的大量研究中，对每种方法进行了深入的评估，最终揭示了与进一步研究和实施有关的优势和劣势。

# **基于距离**

## **1**

**Pairs Trading: Performance of a Relative Value Arbitrage Rule**

Author(s): Evan Gatev, William N. Goetzmann and K. Geert Rouwenhorst

Source: The Review of Financial Studies, Vol. 19, No. 3 (Autumn, 2006), pp. 797-827

股票以标准化历史价格之间的最小距离配对。一个简单的交易规则为pairs的自我融资投资组合带来了高达11%的平均年化超额收益。利润通常会超过保守的交易成本估计。Bootstrap结果表明，“配对”效应不同于以前记录的反转利润。超额收益的稳健性表明，配对交易从相近替代品的暂时错误定价中获利。

## **2**

Do, B., & Faff, R. (2010). **Does simple pairs trading still work?**. *Financial Analysts Journal*, *66*(4), 83-95.

# **基于协整**

## **1**

[请至钉钉文档查看附件《Pairs Trading\_ Quantitative Methods and Analysis\_Ganapathy Vidyamurthy.pdf》](https://alidocs.dingtalk.com/document/edit?dentryKey=Djlq2XQ3h5z9AALY&iframeQuery=anchorId%253DX02lcyksekwfji9myhlptu&type=d&utm_medium=drive_spacefile&utm_source=drive)

## **2**

Wen, D., Ma, C., Wang, G. J., & Wang, S. (2018). **Investigating the features of pairs trading strategy: A network perspective on the Chinese stock market**. *Physica A: Statistical Mechanics and its Applications*, *505*, 903-918.

# **基于时间序列**

## **1**

Cummins, M., & Bucca, A. (2012). **Quantitative spread trading on crude oil and refined products markets.** *Quantitative Finance*, 12(12), 1857–1875

## **2**

Chen, C. W., Wang, Z., Sriboonchitta, S., & Lee, S. (2017). **Pair trading based on quantile forecasting of smooth transition GARCH models**. *The North American Journal of Economics and Finance*, *39*, 38-55.

# **基于随机控制**

## **1**

Jurek, J. W., & Yang, H. (2007, April). **Dynamic portfolio selection in arbitrage**. In *EFA 2006 Meetings Paper*.

## **2**

Liu, J., & Timmermann, A. (2013). **Optimal convergence trade strategies**. *The Review of Financial Studies*, *26*(4), 1048-1086.

## **3**

Lei, Y., & Xu, J. (2015). **Costly arbitrage through pairs trading**. *Journal of Economic Dynamics and Control*, *56*, 1-19.

## **4**

Song, Q., & Zhang, Q. (2013). **An optimal pairs-trading rule**. *Automatica*, *49*(10), 3007-3014.

## **5**

Tourin, A., & Yan, R. (2013). **Dynamic pairs trading using the stochastic control approach**. *Journal of Economic Dynamics and Control*, *37*(10), 1972-1981.

# **基于机器学习等预测**

## **1**

Huck, N. (2010). Pairs trading and outranking: **The multi-step-ahead forecasting case**. *European Journal of Operational Research*, *207*(3), 1702-1716.

## **2**

Focardi, S. M., Fabozzi, F. J., & Mitov, I. K. (2016). **A new approach to statistical arbitrage: Strategies based on dynamic factor models of prices and their performance**. *Journal of Banking & Finance*, *65*, 134-155.

## **3**

Krauss, C., Do, X. A., & Huck, N. (2017). **Deep neural networks, gradient-boosted trees, random forests: Statistical arbitrage on the S&P 500**. *European Journal of Operational Research*, *259*(2), 689-702.

## **4**

Huck, N. (2019). **Large data sets and machine learning: Applications to statistical arbitrage**. *European Journal of Operational Research*, *278*(1), 330-342.

## **5**

Flori, A., & Regoli, D. (2021). **Revealing pairs-trading opportunities with long short-term memory networks**. *European Journal of Operational Research*, *295*(2), 772-791.

# **基于PCA等降维**

## **1**

Avellaneda, M., & Lee, J.-H. (2010). **Statistical arbitrage in the US equities market**. Quantitative Finance, 10(7), 761–782. doi:10.1080/14697680903124632

使用PCA或者将收益率回归ETF的方式进行均值回归统计套利，进行了1997-2008的回测，还特别考虑了2007-2008金融危机期间的研究

# **基于copula**

<https://zhuanlan.zhihu.com/p/138800469>

## **1**

**A pairs trading strategy based on mixed copulas**

Author(s): Fernando A.B. Sabino da Silva, Flavio A. Ziegelmann, João F. Caldeira

Source: The Quarterly Review of Economics and Finance, Volume 87, February 2023, Pages 16-34