# 样本量计算领跑者PASS介绍

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PASS(Power Analysis and Sample Size)是用于效能分析和样本量估计的统计软件包，是市场研究中最好的效能检验的软件。它能对数十种统计学检验条件下的检验效能和样本含量进行估计，主要包括区间估计、均数比较、率的比较、相关与回归分析和病例随访资料分析等情形。该软件界面友好，功能齐全，操作简便。用户不需要精通统计学知识，只要确定医学研究设计方案，并提供相关信息，就可通过简单的菜单操作，估计出检验效能和样本含量。




PASS特点

**一个或两个均值检验**

PASS包含60多种用于样本量估计的工具和一个、两个、或同时两个不同均值的效能检验比对，包括t检验、等价性检验、非劣效性检验、交叉检验、无参数检验、仿真检验等等。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**多均值检验**

PASS包含几种用于样本量估计的工具和三个或更多不同均值的效能检验比对。包括ANOVA、混合模型、多重对比、多变量方差分析和重复测量等等。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**相关性检验**

PASS包含几种用于样本量估计的工具和相关性效能检验，包括单相关性和双相关性检验、单相关性的置信区间、组内相关性检验。PASS还可以计算样本量和效能，用于检验系数的透明度，检验两个评价指标间一致性的kappa值和线性一致性相关系数。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**正态性检验**

PASS包含对8种不同正态性检验方法的样本量计算和效能检验。使用过程很简单，并且都经过了准确性验证。

**方差和标准差**

PASS包含了多种对方差和标准差的样本量计算和效能检验方法，包括单一方差和两个方差的检验、单方差的置信区间检验、两个方差比值的置信区间检验、标准差的置信区间检验。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**回归检验**

PASS包含了几种用于回归分析的样本量计算和效能检验方法，包括线性回归、线性回归斜率的置信区间、多重回归、多因素回归、泊松回归和逻辑回归。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**一比重检验**

PASS包含了20多种用于一比重的样本量计算和效能检验工具，包括z检验、等价性检验、非劣效性检验、置信区间检验和条件效能检验等等。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**二比重检验**

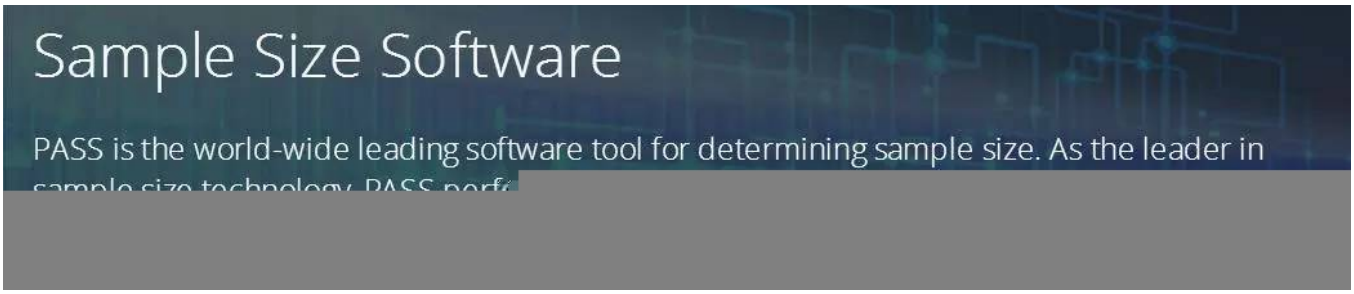
PASS包含了50多种用于二比重的样本量计算和效能检验工具，包括z检验、等价性检验、非劣效性检验、置信区间检验、相关比例检验、随机聚类检验和条件效能检验等等。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**卡方和其它比重检验**

PASS包含几种用于多比重的样本量计算和效能检验工具，包括卡方检验、 Cochran-Armitage、二序分类变量检验、灵敏性和特效性检验等等。每一个过程的使用都很简单，并且经过了精密的准确性验证。

**残存检验**

PASS包含了25种用于残存方法的样本量计算和效能检验工具，包括时序检验、非劣效性检验、组连续性检验、条件效能检验等等。每一个过程的使用都很简单，并且经过了精密的准确性验证。




**英文介绍**

PASS software is an easy-to-use research tool for determining the number of subjects that should be used in a study. As the leader in sample size technology, PASS performs power analysis and calculates sample sizes for over 200 statistical tests and confidence intervals. With more sample size options than any other package, PASS is thebest research planning tool on the market.

PASS Upgrade Information

What ’s New in PASS 14?

We are pleased to announce the release of PASS 14. PASS 14 adds over 25 new power and sample size procedures, including13 means procedures, 3 rates and counts procedures, 3 survival analysis procedures, 5 regression procedures, and 2 acceptance sampling procedures. Over45 procedures were updated and/or improved as well.

New Procedures in PASS 14

Means

Equivalence Tests for the Difference Between Two Paired Means

Non-Inferiority Tests for Two Means in a Cluster-Randomized Design

Equivalence Tests for Two Means in a Cluster-Randomized Design

Superiority by a Margin Tests for Two Means in a Cluster-Randomized Design

Tests for the Difference of Two Means in a Higher-Order Cross-Over Design

Tests for the Ratio of Two Means in a Higher-Order Cross-Over Design

Tests for Fold Change of Two Means

MxM Cross-Over Designs

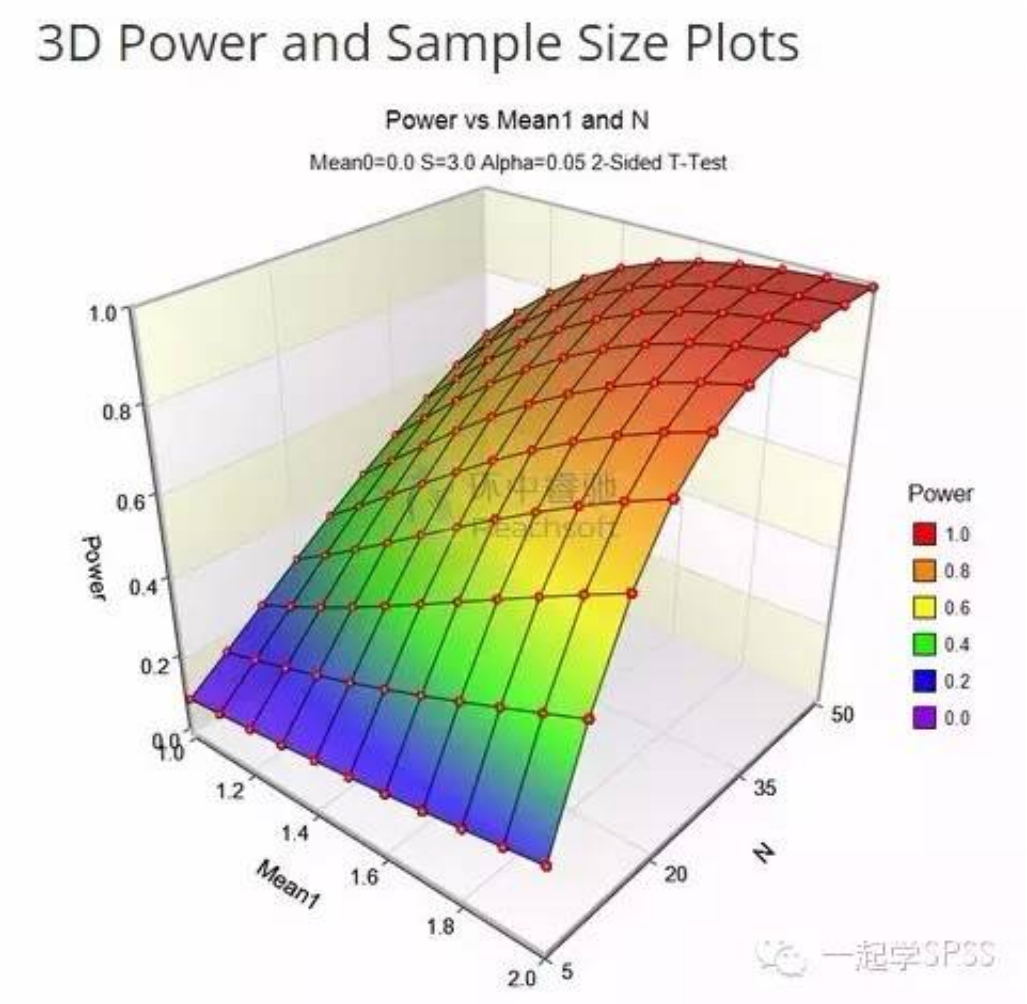
M-Period Cross-Over Designs using Contrasts

One-Way Repeated Measures

One-Way Repeated Measures Contrasts

One-Way Analysis of Variance Contrasts

Confidence Intervals for One-Way Repeated Measures Contrasts




Rates and Counts

Tests for the Difference Between Two Poisson Rates

Tests for the Difference Between Two Poisson Rates in a Cluster-Randomized Design

Tests for the Ratio of Two Negative Binomial Rates

Survival

Logrank Tests in a Cluster-Randomized Design

One-Sample Logrank Tests

One-Sample Cure Model Tests

Regression

Reference Intervals for Clinical and Lab Medicine

Tests for the Difference Between Two Linear Regression Slopes

Tests for the Difference Between Two Linear Regression Intercepts

Mendelian Randomization with a Binary Outcome

Mendelian Randomization with a Continuous Outcome

Acceptance Sampling

Acceptance Sampling for Attributes

Operating Characteristic Curves for Acceptance Sampling for Attributes

Updated and/or Improved Procedures in PASS14

Means

Tests for Two Means using Ratios

Tests for Two Means in a Cluster-Randomized Design

Non-Inferiority Tests for the Difference of Two Means in a Higher-Order Cross-Over Design

Non-Inferiority Tests for the Ratio of Two Means in a Higher-Order Cross-Over Design

Equivalence Tests for the Difference of Two Means in a Higher-Order Cross-Over Design

Equivalence Tests for the Ratio of Two Means in a Higher-Order Cross-Over Design

Superiority by a Margin Tests for the Difference of Two Means in a Higher-Order Cross-Over Design

Superiority by a Margin Tests for the Ratio of Two Means in a Higher-Order Cross-Over Design

One-Way Analysis of Variance F-Tests

Rates and Counts

Tests for One Poisson Rate

Tests for the Ratio of Two Poisson Rates

Proportions

Tests for One Proportion

Non-Inferiority Tests for One Proportion

Equivalence Tests for One Proportion

Superiority by a Margin Tests for One Proportion

Tests for Two Proportions

Tests for Two Proportions in a Repeated Measures Design

Non-Inferiority Tests for the Difference Between Two Proportions

Non-Inferiority Tests for the Ratio of Two Proportions

Non-Inferiority Tests for the Odds Ratio of Two Proportions

Equivalence Tests for the Difference Between Two Proportions

Equivalence Tests for the Ratio of Two Proportions

Equivalence Tests for the Odds Ratio of Two Proportions

Superiority by a Margin Tests for the Difference Between Two Proportions

Superiority by a Margin Tests for the Ratioof Two Proportions

Superiority by a Margin Tests for the Odds Ratio of Two Proportions

Confidence Intervals for the Difference Between Two Proportions

Confidence Intervals for the Ratio of Two Proportions

Confidence Intervals for the Odds Ratio ofTwo Proportions

Tests for Two Correlated Proportions(McNemar Test)

Non-Inferiority Tests for the Difference Between Two Correlated Proportions

Non-Inferiority Tests for the Ratio of Two Correlated Proportions

Equivalence Tests for the Difference Between Two Correlated Proportions

Equivalence Tests for the Ratio of Two Correlated Proportions

Tests for Two Proportions in aCluster-Randomized Design

Non-Inferiority Tests for the Difference of Two Proportions in a Cluster-Randomized Design

Non-Inferiority Tests for the Ratio of Two Proportions in a Cluster-Randomized Design

Equivalence Tests for the Difference of Two Proportions in a Cluster-Randomized Design

Equivalence Tests for the Ratio of Two Proportions in a Cluster-Randomized Design

Superiority by a Margin Tests for the Difference of Two Proportions in a Cluster-Randomized Design

Superiority by a Margin Tests for the Ratio of Two Proportions in a Cluster-Randomized Design

Group-Sequential Tests for Two Proportions (Simulation)

Group-Sequential Non-Inferiority Tests for the Difference of Two Proportions (Simulation)

Group-Sequential Non-Inferiority Tests for the Ratio of Two Proportions (Simulation)

Group-Sequential Non-Inferiority Tests for the Odds Ratio of Two Proportions (Simulation)

Group-Sequential Superiority by a Margin Tests for the Difference of Two Proportions (Simulation)

Group-Sequential Superiority by a Margin Tests for the Ratio of Two Proportions (Simulation)

Group-Sequential Superiority by a Margin Tests for the Odds Ratio of Two Proportions (Simulation)

Compatibility of PASS 14

PASS 14 is fully compatible with Windows10, 8.1, 8, 7, Vista, and XP on both 32-bitand 64-bit operating systems. Click here to view the complete system requirements.

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