# Package 'RDSsamplesize'

### October 18, 2022

Type Package	
Title RDS Sample Size Estimation and Power Calculation	
Version 0.2.0	
Maintainer Yibo Wang <wangyb@umich.edu></wangyb@umich.edu>	
<b>Description</b> Provides functionality for carrying out sample size estimation and power calculation in Respondent-Driven Sampling.	
License GPL-3	
<b>Depends</b> R (>= 3.3.0)	
SystemRequirements C++11	
Imports Rcpp	
LinkingTo Rcpp	
Encoding UTF-8	
RoxygenNote 7.2.0	
NeedsCompilation yes	
Author Yibo Wang [aut, cre], Michael R. Elliott [aut], Sunghee Lee [aut]	
Suggests knitr, rmarkdown, dplyr, ggplot2, latex2exp	
VignetteBuilder knitr	
Repository CRAN	
<b>Date/Publication</b> 2022-10-18 07:45:32 UTC	
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2 calSize

calSize

Calculate the accumulated sample size distribution by each wave.

#### Description

Calculate the accumulated sample size distribution by each wave.

#### Usage

```
calSize(n0, m, maxT, p_list_vec, tol)
```

#### Arguments

n0 Number of seeds.

m Number of coupons issued to each participant.

maxT Planned field period.

p\_list\_vec A vector of recruitment rates.

tol Accuracy loss limit.

#### Value

a list consisting of the following elements:

P\_tau\_list vector; a vector of extinction probability at each wave.

Fk list; probability mass function of the accumulated sample size by each wave,

k=1,...,maxT.

#### **Examples**

```
result <- calSize(n0=10,m=3,maxT=9,p_list_vec=rep(0.3,9),tol=0.005)
```

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