



## TWIGSTATS: SCIENCE & TECHNOLOGY

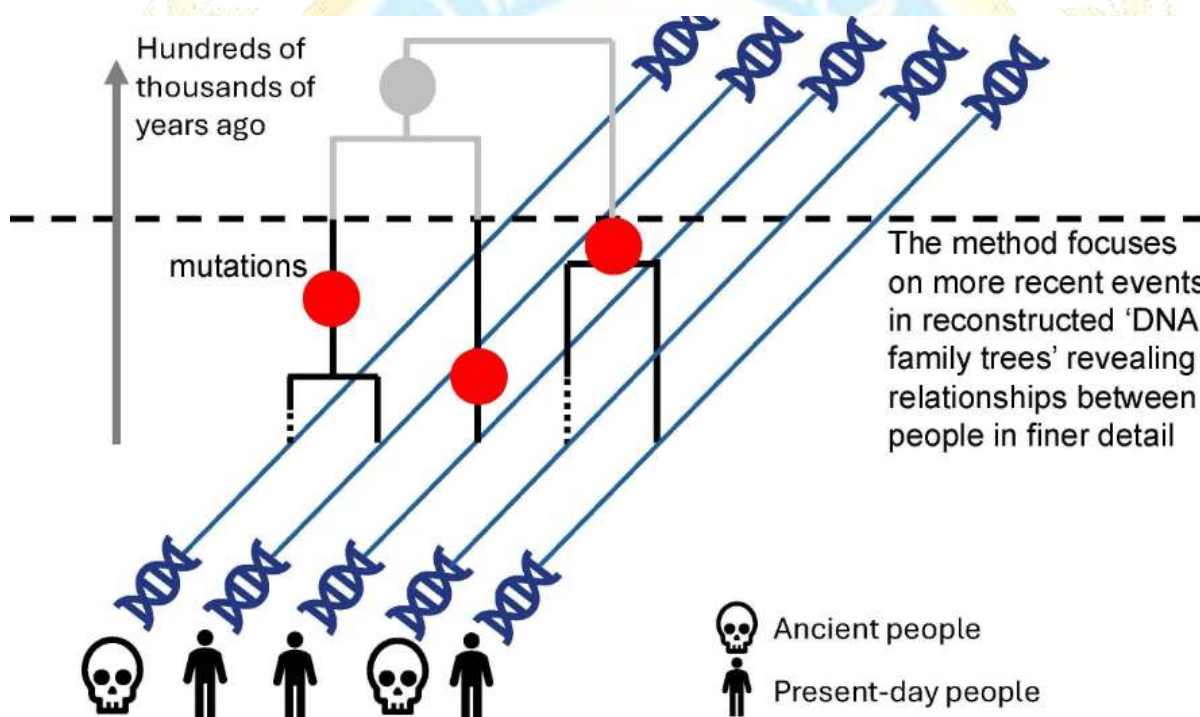
**NEWS:** Twigstats: New tool reveals hi-res genetic view of people's ancestors

### WHAT'S IN THE NEWS?

Twigstats is an advanced genetic analysis method that combines shared and rare DNA variations to trace ancient population movements and ancestry, offering clearer insights into cultural and genetic changes over time.

### What is Twigstats?

- **Definition:**
  - A new method developed to study the genetic history of populations.
  - Combines shared DNA segments and rare DNA variations for detailed analysis.



### How It Works

- **Analysis of Genetic Data:**
  - Looks at large ancient DNA datasets to identify migration patterns and ancestry.
  - Creates maps of population movement over time.
- **Statistical Accuracy:**



- Reduces errors in genetic studies.
- Increases the statistical power of existing methods.

## Applications of Twigstats

- **Studying Ancient Populations:**
  - Tested on Viking Age DNA samples to study migration in Europe.
  - Helps uncover the ancestry and movements of ancient people.
- **Understanding Cultural Changes:**
  - Correlates genetic findings with cultural transitions in human history.

## Significance

- **Improved Reconstruction of History:**
  - Offers a more precise tool for understanding ancient population dynamics.
  - Enhances our knowledge of how genetics and culture evolved together.



Three waves of migrations across Europe were identified in the paper. Credit: Leo Speidel, the Francis Crick Institute

Source: <https://www.thehindu.com/sci-tech/science/twigstats-new-tool-reveals-hi-res-genetic-view-of-peoples-ancestors/article69053627.ece>