What are our statisticians up to?

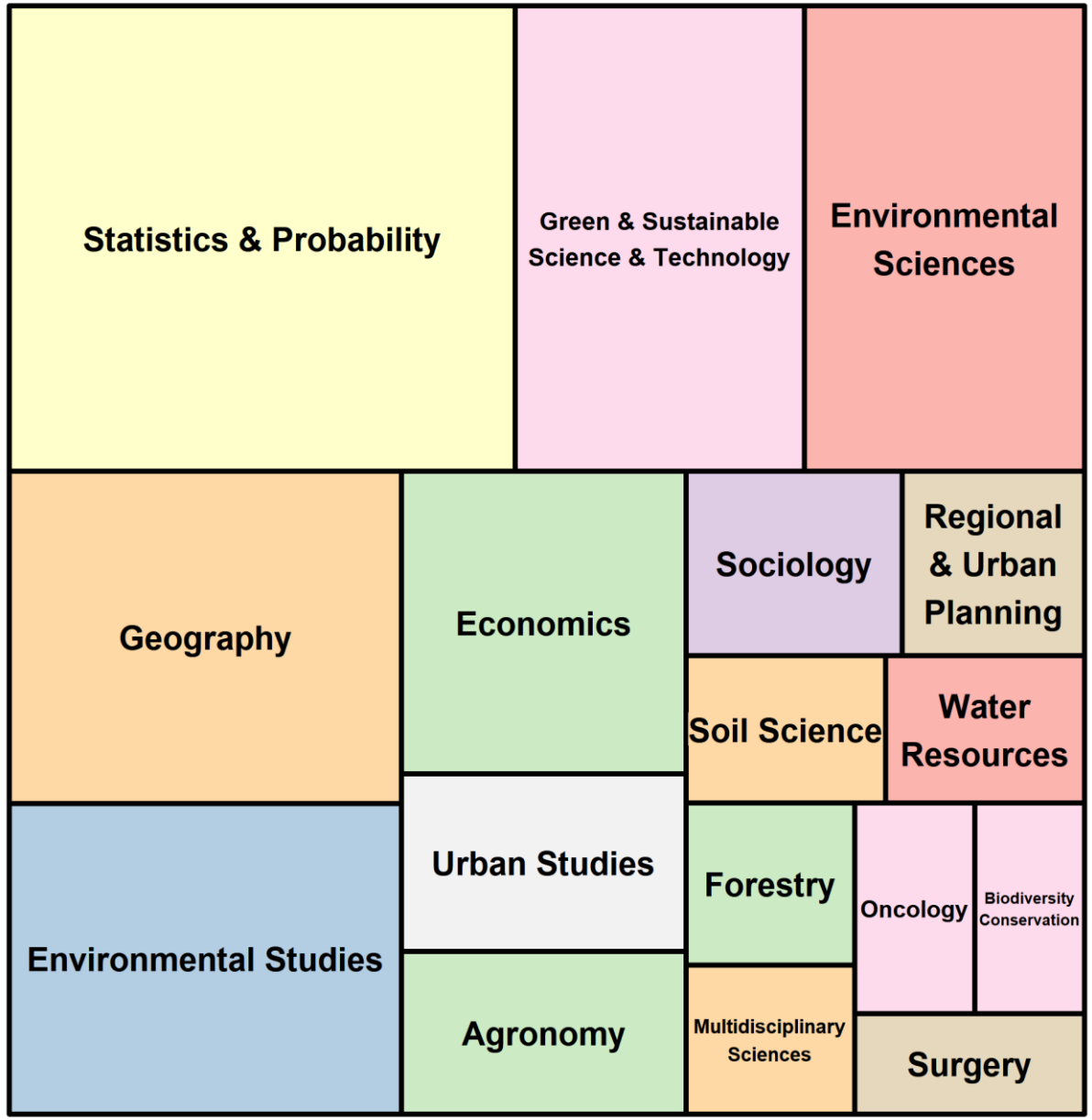
Giornate della Ricerca – MEMOTEF
Facoltà di Economia, Sapienza Università di Roma

May 31 – June 1, 2022

Publications (co)authored by statisticians at MEMOTEF

Category	Number of pubs
Statistics & Probability	112
Green & Sustainable Science & Technology	64
Environmental Sciences	62
Geography	62
Environmental Studies	58
Economics	41
Urban Studies	24
Agronomy	22
Sociology	19
Regional & Urban Planning	16
Other	87
TOTAL	567

All-time publications of current MEMOTEF statistics faculty and staff members. Source: Scopus



Methodology

Publications in Statistics & Probability journals. Source: Scopus

Applications

Publications in journals other than Statistics & Probability. Source: Scopus

Knowledge and skills among our statisticians

Fancy name	What is it?	How is this useful?
Sampling designs and design of experiments, capture and recapture, power analysis, record linkage, exchangeability	Theoretical properties of samples and techniques/rules for data collection/merging	Help you obtain samples via random sampling or via administrative data abstraction
Instruments, measurement errors, misclassification, missing data	Knowledge of different types of data and related issues	Identify most appropriate statistical methods to analyze data
Regression: linear and nonlinear, quantile, mixed-effects and latent class, spatial/spatio-temporal, circular, survival…	Study of the relationship between an outcome (Y) and several covariates (X)	*Aetiology*: analyze associations to try understand the causes *Prediction*: forecast events beyond what is observed
Multivariate statistics, network analysis, clustering, random forests, copulas	Methods for multidimensional problems and complex relationships	Help you find relationships between possibly many variables
Statistical computing, programming with R, C++, Stata, SAS, optimization, data storage and reduction, resampling methods, decision making	Collection of methods, techniques and programming solutions to tackle computationally intensive problems	Implement new algorihms from scratch into usable software for solving complex and/or specialized and/or high dimensional problems