ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

ΣΧΟΛΗ ΕΠΙΣΤΗΜΩΝ & ΤΕΧΝΟΛΟΓΙΑΣ ΤΗΣ ΠΛΗΡΟΦΟΡΙΑΣ
SCHOOL OF INFORMATION SCIENCES & TECHNOLOGY

ΤΜΗΜΑ ΣΤΑΤΙΣΤΙΚΗΣ
DEPARTMENT OF STATISTICS

ΚΥΚΛΟΣ ΣΕΜΙΝΑΡΙΩΝ ΣΤΑΤΙΣΤΙΚΗΣ – ΙΑΝΟΥΑΡΙΟΣ 2016

Κωνσταντίνος Δασκαλάκης

Massachusetts Institute of Technology

Testing Properties of Distributions

ΤΕΤΑΡΤΗ 13/1/2016
13:00 – 15:00

ΑΙΘΟΥΣΑ 607, 6ος ΟΡΟΦΟΣ,
ΚΤΙΡΙΟ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ
(ΕΥΕΛΠΙΔΩΝ & ΛΕΥΚΑΔΟΣ)

ΠΕΡΙΛΗΨΗ

Given samples from an unknown distribution, p, is it possible to distinguish whether p belongs to some class of distributions C versus p being far from every distribution in C, by at least ε in total variation distance? This fundamental question has received tremendous attention in Statistics and Computer Science. Nevertheless, even for basic classes of distributions such as monotone, log-concave, unimodal, or product, the optimal sample complexity is unknown. We provide optimal testers for these families.

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DEPARTMENT OF STATISTICS

AUEB STATISTICS SEMINAR SERIES – JANUARY 2016

Konstantinos Daskalakis
Massachusetts Institute of Technology

Testing Properties of Distributions

WEDNESDAY 13/1/2016
13:00 – 15:00

ROOM 607, 6th FLOOR,
POSTGRADUATE STUDIES BUILDING
(EVELPIDON & LEFKADOS)

ABSTRACT

Given samples from an unknown distribution, p, is it possible to distinguish whether p belongs to some class of distributions C versus p being far from every distribution in C, by at least ε in total variation distance? This fundamental question has received tremendous attention in Statistics and Computer Science. Nevertheless, even for basic classes of distributions such as monotone, log-concave, unimodal, or product, the optimal sample complexity is unknown. We provide optimal testers for these families.