## THE ANNALS of STATISTICS

## AN OFFICIAL JOURNAL OF THE INSTITUTE OF MATHEMATICAL STATISTICS

## **Estimation on Manifolds**

| Large sample theory of intrinsic and extrinsic sample means on manifolds. I RABI BHATTACHARYA AND VIC PATRANGENARU                | 1   |
|---|-----|
| Nonparametric Estimation  |     |
| Image denoising: Pointwise adaptive approach  | 20  |
| JÖRG POLZEHL AND VLADIMIR SPOKOINY  | 30  |
| Thresholding estimators for linear inverse problems and deconvolutions  JÉRÔME KALIFA AND STÉPHANE MALLAT                         | 58  |
| Wavelet thresholding for non-necessarily Gaussian noise: Idealism R. AVERKAMP AND C. HOUDRÉ                                       | 110 |
| Wavelet threshold estimation for additive regression models SHUANGLIN ZHANG AND MAN-YU WONG                                       | 152 |
| Nonparametric estimation of convex models via mixtures Peter D. Hoff  | 174 |
| Nonparametric estimation of component distributions in a multivariate mixture PETER HALL AND XIAO-HUA ZHOU                        | 201 |
| Model Selection   |     |
| Adaptive tests of linear hypotheses by model selection Y. BARAUD, S. HUET AND B. LAURENT  | 225 |
| Model selection in nonparametric regression MARTEN WEGKAMP  | 252 |
| Multivariate Analysis   |     |
| Multivariate saddlepoint tail probability approximations JOHN E. KOLASSA The complex Wishart distribution and the symmetric group | 274 |
| PIOTR GRACZYK, GÉRARD LETAC AND HÉLÈNE MASSAM   | 287 |
| Longitudinal Data   |     |
| Asymptotics for generalized estimating equations with large cluster sizes  MINGE XIE AND YANING YANG                              | 310 |
| Correction  |     |
| Separation and completeness properties for AMP chain graph Markov models MICHAEL LEVITZ, MICHAEL D. PERLMAN AND DAVID MADIGAN     | 348 |