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Preface

Three series of lectures were given at the 33rd Probability Summer School in Saint-Flour (July 6–23, 2003), by the Professors Dembo, Funaki and Massart. This volume contains the courses of Professors Dembo and Funaki. The course of Professor Massart, entitled “Concentration inequalities and model selection”, will appear in another volume. We are grateful to the authors for their important contribution.

64 participants have attended this school. 31 of them have given a short lecture. The lists of participants and of short lectures are enclosed at the end of the volume.

The Saint-Flour Probability Summer School was founded in 1971. Here are the references of Springer volumes where lectures of previous years were published. All numbers refer to the *Lecture Notes in Mathematics* series, except S-50 which refers to volume 50 of the *Lecture Notes in Statistics* series.

1971: vol 307	1980: vol 929	1990: vol 1527	1997: vol 1717
1973: vol 390	1981: vol 976	1991: vol 1541	1998: vol 1738
1974: vol 480	1982: vol 1097	1992: vol 1581	1999: vol 1781
1975: vol 539	1983: vol 1117	1993: vol 1608	2000: vol 1816
1976: vol 598	1984: vol 1180	1994: vol 1648	2001: vol 1837 & 1851
1977: vol 678	1985/86/87: vol 1362 & S-50		2002: vol 1840
1978: vol 774	1988: vol 1427	1995: vol 1690	
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Further details can be found on the summer school web site
<http://math.univ-bpclermont.fr/stflour/>

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