

# INDEX OF SUBJECTS

Page numbers in italics refer to the main subjects of the papers

- additive genetical effects of isolates, 275  
allelic variation in yeast, 395  
allopolyploid origin of *Potentilla anglica*, 315-327  
ammonium repression in *Aspergillus nidulans*, 120  
antimutagenesis in *E. coli*, 124  
arginine  
  metabolism, 117-118, 119  
  pathway, 121, 122  
autotetraploids, bivalent forming in *Brassica*, 394
- backcross data, estimates of viability and manifestation in, at same locus, 1-10  
bacteria, rod-shaped, growth of envelope of, 396  
bacterial  
  cell cycle, chromosome replication in, 396  
  viruses, genetics of, 111  
barley, time of heading in, 341-357  
basidiomycete species, evolution of, 397
- canonical analysis, 163  
canopy structure and productivity in rye-grass, 389  
chaeta number in *D. melanogaster*, 95-100  
chiasma frequency, variation of, in *Chorthippus brunneus*, 259-262  
chiasmata, localisation of, in *Cepaea nemoralis*, 213-221  
chromosome  
  fragments, use of, in hybrid barley, 393-394  
  manipulation, problems of, 393  
  pairings, genetic system controlling, in wheat, 390  
  polymorphism, 127  
  replication in bacterial cell cycle, 396  
chromosomes  
  neglected, in flowering plants, 394  
  of *Cepaea nemoralis*, 215-216  
  sex, in *D. melanogaster*, 98  
  supernumerary, in *Aegilops speltoides*, 329-337  
component analysis, 51-70  
conversion ratios in octads from crosses of *Ascobolus immersus*, 397  
covariation, factors of, in *Nicotiana rustica*, 151-175  
cystic fibrosis  
  genetic study of, in the pancreas, 126  
  in *Dreissensia polymorpha*, 127  
  cytogenetics, and wheat breeding, 393  
  cytoplasmic male sterility, 253-257
- dermatoglyphic variation in local populations, 293-305  
development, effect on, of supernumerary chromosomes, 336  
developmental  
  genes in flowering time of *Antirrhinum*, 391  
  variation of chiasma frequency, 259-262  
diallel analysis of heading time in barley, 341-357  
Di-mon matings in *Schizophyllum commune*, 191-201  
disease resistance in cereals, 392  
disruptive selection, 132  
DNA  
  nuclear content and generation time, 390  
  nuclear content in *crepis*, 367-373  
  polymerase deficiency, 203-211  
dominance, modification of, by selection, 285-292  
dormancy, reduced, in Charlock, 37-49
- ecological genetics, 115  
ecologically marginal populations, 393  
environment, physical measures of, 51-70  
environmental covariation, 151-175  
environmentally induced changes, in *Linum*, 391  
enzyme  
  activity, 121  
  pathways, 122  
  regulation, 122  
  linamarase (Li), 392
- factor analysis, application of, to study of variation, 135-149, 154, 160  
fertility in *streptomyces coelicolor*, 124  
flowering time, variation in, in *Antirrhinum*, 391  
gamma ray mutagenesis in *E. coli*, 203-211  
gene  
  controlling incubation period of scrapie, 91-93  
  expression, modification of, 247-252  
  segregation, aberrant, 83-90  
generation time, minimum, and DNA content, 390

- genetic  
 analysis of *tribolium*, 247-252  
 architecture of chaeta number, 95-100  
 change, in yeast, 130  
 control of induced changes in *Linum*, 391  
 control of cell wall biogenesis, 394  
 differences in *Pararge megera*, 307-313  
 drift in land snails, 177-190  
 systems in *Triticinae*, 390
- genetics  
 in monkeys, apes and man, 112-113  
 symposia, 113-114
- genomic constitution of *Potentilla anglica*, 315-327
- genotype  
 environment interaction, 51-70, 160, 172, 263-283  
 environment components, 237-245  
 in *D. Melanogaster*, 96
- genotypic covariation, 151-175
- gibberellic acid, effects on germination, in charlock, 38
- glutamate transport in *Aspergillus nidulans*, 128
- headful hypothesis, 123
- hermaphrodite plants, male outcrossing in, 223-236
- heterokaryons, 121
- heterosis, of cystic fibrosis of pancreas, 126
- homozygote, modification of dominance in, 285-292
- hybridisation studies  
 in *Pararge megera*, 307-313  
 in Plaice and Flounder, 11-24  
 in *Potentilla*, 315-327
- inbreeding and natural selection, 103-107
- incompatibility in *coprinus lagopus*, 126
- incubation period, effect of *Dh* gene on, in scrapie, 91-93
- induced changes  
 in flax, 71-81  
 in plant weight, 71-81
- lactose utilisation in *Aspergillus nidulans*, 129
- Li locus, *Trifolium repens*, 392
- linkage  
 disequilibrium in *D. melanogaster*, 128  
 disturbed, 1-10
- male outcrossing in hermaphrodites, 223-236
- meiosis in *Potentilla anglica*, 319
- meiotic recombination in *Schizophyllum commune*, 195
- metamorphosis in plaice, 19
- methionine biosynthesis, 117
- methyl ammonium resistance, 121
- mutagenesis  
 genetic background, effect on, 395  
 of DNA polymerase, 203-211  
 mutants in yeast, sensitive to UV and gamma rays, 395
- mutation  
 in *Aspergillus nidulans*, 130  
 in *E. coli*, 124, 125
- natural  
 populations of *Aspergillus nidulans*, 263-284  
 selection, inbreeding and fundamental theorem of, 103-107
- nitrate assimilation, 119-120
- nitrogen metabolism, control of, 119
- non-linear interactions, 273
- nuclear DNA content of *Crepis* spp, 367-373
- nucleic acid synthesis, control of, 131
- oil seed rape, cytoplasmic sterility in, 253-257
- outcrossing  
 in flax, 71-81  
 male, in hermaphrodites, 223-236
- peas, breeding of, without leaves, 391
- pesticides, mutagenicity of, 111-112
- plant  
 breeding, implications of, 389  
 weight, induced changes in, 71-81
- plastid inheritance, nuclear control of, 392
- polymorphism, 131, 132  
 in land snails, 180
- polyploidy, induced, in plaice, 11-24
- population differences in *Pararge megera*, 307-313
- proteases, genetics of, in *Aspergillus nidulans*, 131
- purine synthesis, control of, 118
- radiation damage, 125
- recombination  
 fraction between 2 loci, 1-10  
 somatic in *basidiomycetes*, 191-201
- regression analyses, joint, 269
- reversion of weight changes, in flax, 71-80
- ryegrass  
 trisomes of, 389  
 canopy structure and productivity in, 389
- satyrid butterfly, genetic differentiation in two populations of, 309-313
- scrapie, in mice, 91-93
- seed-coat colour effect on dormancy in charlock, 38
- seed development in raspberry, 83-90

- selection  
 effects of simultaneous disruptive and stabilising, 363-365  
 for rapid germination in charlock, 45  
 for reduced dormancy in charlock, 37-49  
 in *Lolium perenne*, 375-379  
 modification of dominance by, 285-292  
 theory, 234
- segregation, aberrant, 83-90
- sex determination, in *Potentilla fruticosa*, 359-362
- sex pilus formation, in *Proteus mirabilis*, 123
- somatic recombination in *Schizophyllum commune*, 191-201
- South Midlands, dermatoglyphic variation in, 293-305
- spot-distribution in *Maniola*, 25-36
- sternopleural chaeta number in *D. melanogaster*, 95-100
- supernumerary chromosomes, transmission of, in *Aegilops speltoides*, 329-339
- survival in *Lolium perenne*, 375-379
- tetraploids, attempted production of, in plaice, 14
- time to heading in barley, diallel analysis of, 341-357
- transmission of supernumerary chromosomes, 329-337
- translocation in mammals, 127
- transcription, divergent, 122
- urea uptake in *Aspergillus nidulans*, 129
- U.V. induced reversions in *E. coli*, influence of streptomycin on, 395
- U.V. light and ionising radiation damage in yeast, 395
- variability  
 genotype-environmental components of, 237-245  
 life-cycle, in *myzus persicae*, 128
- variation  
 in flowering time, genetics of, in *Antirrhinum*, 391  
 in *Papaver dubium*, 135-149  
 in survival, in *Lolium perenne*, 375-379
- viability  
 differential, 1-10  
 effect of light on, in *coprinus lagopus*, 125
- wheat hybrids, chromosome pairings in, 390
- world populations, variations in, 135-149
- wing veining in *D. melanogaster*, 285-292
- Xanthine dehydrogenase, control of, in *Aspergillus nidulans*, 120