

Cambridge University Press

052144926X - Local Representation Theory: Modular Representations as an Introduction to the Local Representation Theory of Finite Groups

J. L. Alperin

Index

[More information](#)*Index*

- algebra decomposition, 92
- algebra of finite type, 130
- augmentation ideal, 12, 20
- block, 92
- block of characters, 128
- Brauer–Dade cyclic theory, x
- Brauer graph, 165
- Brauer graph algebra, 165
- Brauer map, 101
- Brauer pair, 113
- Brauer’s First Main Theorem, x, 102
- Brauer’s Second Main Theorem, x, 102
- Brauer’s Third Main Theorem, 112
- Brauer tree, 118
- Brauer tree algebra, 119
- Burry–Carlson–Puig theorem, ix
- Burry, D., ix
- canonical module, 110, 117
- Cartan matrix, 169
- character, 126
- character degree, 126
- character table, 126
- Clifford’s theorem, 17
- Clifford theory, 16
- covering block, 105
- cyclic group modules, 14, 24–5, 34
- cyclic normal Sylow subgroup, 42, 100
- defect, 96
- defect group, 96
- dual module, 38
- endomorphism algebra, 7
- exceptional vertex, 118
- faithful module, 45
- free module, 28–9
- Green correspondence, 79
- Green, J. A., ix
- Green–Peacock approach, x
- Green’s indecomposability criterion, 62
- Heller operator, 146
- indecomposable module, 21
- inertial index, 123
- injective envelope, 145
- injective module, 41
- Jordan–Hölder theorem, 117
- Krull–Schmidt theorem, 22
- Laplace determinant expansion, 172
- local algebra, 21
- Loewy length, 7
- Mackey’s tensor product theorem, 64
- Mackey’s theorem, 61
- modules in blocks, 93
- Morita equivalence, 131–2, 139–41
- multiplicity, 118
- Nagao’s theorem, x
- nilpotent block, 129
- normal subpair, 114

Cambridge University Press

052144926X - Local Representation Theory: Modular Representations as an Introduction to the Local Representation Theory of Finite Groups

J. L. Alperin

Index

[More information](#)

178

Index

- open polygon, 119
- principal block, 112
- projective cover, 143
- projective homomorphism, 84, 143
- projective module, 30–3
- radical, 3, 6, 20
- radical length, 6
- radical series, 6
- relatively free module, 54
- relatively projective module, 65, 80–1
- Schur's lemma, 8
- semisimple algebra, 3
- semisimple module, 2
- short module, 152
- simple algebra, 1
- simple module, 1
- $SL(2,p)$, 14–16, 48–53, 75–9, 123
- socle length, 7
- socle series, 7
- source, 67
- stabilizer of a block, 105
- star, 119
- subpair, 114
- Sylow b -subgroup, 114
- tall module, 152
- tensor product, 36
- triangular matrix algebra, 5, 7, 37
- trivial module, 12
- uniserial module, 26
- vertex, 67
- Wedderburn theorem, 1