

# RADIATION ONCOLOGY: A PHYSICIST'S-EYE VIEW

Michael Goitein

 Springer

# CONTENTS

Preface .....	vii
1. Radiation in the Treatment of Cancer .....	1
2. Uncertainty .....	13
3. Mapping Anatomy .....	23
4. Designing a Treatment Beam .....	57
5. Biology Matters .....	85
6. Designing a Treatment Plan .....	111
7. Motion Management .....	139
8. Planning Manually .....	157
9. IMRT and “Optimization” .....	177
10. Proton Therapy in Water .....	211
11. Proton Therapy in the Patient .....	247
12. Quality Assurance .....	287
13. Confidence .....	289
Afterword .....	303
Acknowledgements .....	307
Acronyms .....	309
References .....	311
Index .....	323