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Nota di contenuto	Analysis of Electromagnetic Fields and Waves; Contents; D EQUIVALENT CIRCUITS FOR DISCONTINUITIES; Preface; 1 THE METHOD OF LINES; 1.1 INTRODUCTION; 1.2 MOL: FUNDAMENTALS OF DISCRETISATION; 1.2.1 Qualitative description; 1.2.2 Quantitative description of the discretisation; 1.2.3 Numerical example; 2 BASIC PRINCIPLES OF THE METHOD OF LINES; 2.1 INTRODUCTION; 2.2 BASIC EQUATIONS; 2.2.1 Anisotropic material parameters; 2.2.2 Relations between transversal electric and magnetic fields - generalised transmission line (GTL) equations; 2.2.3 Relation to the analysis with vector potentials 2.2.4 GTL equations for 2D structures2.2.5 Solution of the GTL equations; 2.2.6 Numerical examples; 2.3 EIGENMODES IN PLANAR WAVEGUIDE STRUCTURES WITH ANISOTROPIC LAYERS; 2.3.1 Introduction; 2.3.2 Analysis equations for eigenmodes in planar structures; 2.3.3 Examples of system equations; 2.3.4

Impedance/admittance transformation in multilayered structures; 2.3.5
System equation in transformed domain; 2.3.6 System equation in
spatial domain; 2.3.7 Matrix partition technique: two examples; 2.3.8
Numerical results; 2.4 ANALYSIS OF PLANAR CIRCUITS
2.4.1 Discretisation of the transmission line equations 2.4.2
Determination of the field components; 2.5 FIELD AND
IMPEDANCE/ADMITTANCE TRANSFORMATION; 2.5.1 Introduction; 2.5.2
Impedance/admittance transformation in multilayered and
multisectioned structures; 2.5.3 Impedance/admittance transformation
with finite differences; 2.5.4 Stable field transformation through layers
and sections; 3 ANALYSIS OF RECTANGULAR WAVEGUIDE CIRCUITS; 3.1
INTRODUCTION; 3.2 CONCATENATIONS OF WAVEGUIDE SECTIONS;
3.2.1 LSM and LSE modes in circular waveguide bends; 3.2.2 LSM and
LSE modes in straight waveguides
3.2.3 Impedance transformation at waveguide interfaces 3.2.4
Numerical results for concatenations; 3.2.5 Numerical results for
waveguide filters; 3.3 WAVEGUIDE JUNCTIONS; 3.3.1 E-plane junctions;
3.3.2 H-plane junctions; 3.3.3 Algorithm for generalised scattering
parameters; 3.3.4 Special junctions: E-plane 3-port junction; 3.3.5
Matched E-plane bend; 3.3.6 Analysis of waveguide bend
discontinuities; 3.3.7 Scattering parameters; 3.3.8 Numerical results;
3.4 ANALYSIS OF 3D WAVEGUIDE JUNCTIONS; 3.4.1 General description;
3.4.2 Basic equations
3.4.3 Discretisation scheme for propagation between A and B 3.4.4
Discontinuities; 3.4.5 Coupling to other ports; 3.4.6
Impedance/admittance transformation; 3.4.7 Numerical results; 4
ANALYSIS OF WAVEGUIDE STRUCTURES IN CYLINDRICAL COORDINATES;
4.1 INTRODUCTION; 4.2 GENERALISED TRANSMISSION LINE (GTL)
EQUATIONS; 4.2.1 Material parameters in a cylindrical coordinate
system; 4.2.2 GTL equations for z-direction; 4.2.3 GTL equations for
-direction; 4.2.4 Analysis of circular (coaxial) waveguides with
azimuthally-magnetised ferrites and azimuthally magnetised solid
plasma
4.2.5 GTL equations for r-direction

Sommario/riassunto

The Method of Lines (MOL) is a versatile approach to obtaining numerical solutions to partial differential equations (PDEs) as they appear in dynamic and static problems. This method, popular in science and engineering, essentially reduces PDEs to a set of ordinary differential equations that can be integrated using standard numerical integration methods. Its significant advantage is that the analysis algorithms follow the physical wave propagation and are therefore efficient. This is because the fields on the discretisation lines are described by generalised transmission line (GTL) equations.

2. Record Nr.	UNINA9910919823703321
Autore	Aplin Rachael
Titolo	Policing Public Protection : A Companion Guide // edited by Rachael Aplin
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ISBN	9783031745041 3031745043
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (405 pages)
Disciplina	363.23
Soggetti	Criminology Victims of crimes Criminal behavior Community development Social service Family policy Critical criminology Crime Control and Security Victimology Criminal Behavior Social Work and Community Development Children, Youth and Family Policy Critical Criminology
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di contenuto	Chapter 1: Introduction to Public Protection -- Chapter 2: Reframing Domestic Abuse: Policing Coercive Control -- Chapter 3: Policing Honour Based Abuse and Forced Marriage -- Chapter 4: Examining Female Genital Mutilation Laws and Improving Policing Responses -- Chapter 5: Policing Child Sexual Abuse and Exploitation -- Chapter 6: Why do police find it so difficult to investigate rape? -- Chapter 7: Policing the Non-Public: Modern Slavery and Human Trafficking -- Chapter 8: Policing responses to child neglect: It's not just about crime

investigation -- Chapter 9: Policing Child Sexual Abuse: Understanding and negotiating the complexities of disclosures -- Chapter 10: Policing Sudden and Unexpected Child Deaths -- Chapter 11: Cybercrime against Older Adult -- Chapter 12: Investigating the 'Doorstep crimes' of Distraction Burglary and Rogue Trader -- Chapter 13: Conclusions.

Sommario/riassunto

This book explores the effective policing of public protection issues, from chapter authors with varied research and practitioner experience. The collection is aimed at detective police officers in specialist units, response and neighbourhood officers, as well as new recruits in policing public protection. Each chapter offers an understanding of victimology, perpetration, and the effective policing and investigation of such crimes. It explores questions such as why crimes happen, who the victims are, what perpetrators do, and why they might target certain victims. This book explores the evidence base, past mistakes, and what effective and professional policing should 'look like'. The intention is to improve the policing and investigation of such complex crimes. Each chapter provides a concise summary, a comprehensive literature review, and a list of key actions for practice that officers should consider. It closes with a list of key resources. These chapters specifically cover the following thematic crime areas such as domestic abuse, child sexual abuse, gendered violence, and trafficking. This book also speaks to local authorities (Social Services, Trading Standards), professionals in Education, Health and Probation, academics, and Non-Government Organisations (NGO) in the charitable sector. Dr Rachael Aplin is Senior Lecturer in Criminology at Leeds Law School at Leeds Beckett University, UK. She has twenty-years' experience as a detective officer with Greater Manchester Police (1994-2016), UK. Her roles included working in Child Protection, the Major Incident Team, Force Intelligence Branch, Crime Training and as a Domestic Abuse lead within a Public Protection Unit. Her previous book is Policing UK Honour Based Abuse Crime (Palgrave Macmillan, 2019).