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[Claude Spencer, and Waddles](#) Aug 02 2020

**Instability and Control of Massively Separated Flows** May 11 2021 This book contains the outcome of the international meeting on instability, control and noise generated by massive flow separation that was organized at the Monash Center, in Prato, Italy, September 4-6, 2013. The meeting served as the final review of the EU-FP7 Instability and Control of Massively Separated Flows Marie Curie travel grant and was supported by the European Office of Aerospace Research and Development. Fifty leading specialists from twelve countries reviewed the progress made since the 50s of the last century and discussed modern analysis techniques, advanced experimental flow diagnostics and recent developments in active flow control techniques from the incompressible to the hypersonic regime. Applications involving massive flow separation and associated instability and noise generation mechanisms of interest to the aeronautical, naval and automotive industries have been addressed from a theoretical, numerical or experimental point of view, making this book a unique source containing the state-of-the-art in separated flow instability and its control.

**Matrix Isolation Spectroscopy** Apr 10 2021 The matrix isolation (MI) method has now been used for nearly thirty years. During this period it has been actively developed and the range of problems tackled greatly extended. Originally it was used for studies of transient species involving vibrational, electronic and ESR spectroscopy. Nowadays the study of transient species forms a comparatively small part of MI work since it has been amply demonstrated that very fruitful information can be obtained of the structure and interactions of stable molecules and their aggregates. In addition to the s-ectroscopic methods mentioned above the MI technique is nowadays a standard method in research based on vibrational relaxation, luminescence, Mossbauer, magnetic circular dichroism, pulsed NMR and photoelectron spectroscopy. The matrix isolation technique affords considerable advantages over more conventional methods in most applications of spectroscopy. Areas where the technique has been widely applied, or shows great potential, include: metal atom chemistry, and its relation to surface chemistry, high temperature inorganic species, transition metal complexes, interstellar species, free radicals and unstable molecules, conformational studies, molecular complexes, and intermolecular forces.

**Architecting and Deploying DB2 with BLU Acceleration** Sep 27 2022 IBM® DB2® with BLU Acceleration is a revolutionary technology that is delivered in DB2 for Linux, UNIX, and Windows Release 10.5. BLU Acceleration delivers breakthrough performance improvements for analytic queries by using dynamic in-memory columnar technologies. Different from other vendor solutions, BLU Acceleration allows the unified computing of OLTP and analytics data inside a single database, therefore, removing barriers and accelerating results for users. With observed hundredfold improvement in query response time, BLU Acceleration provides a simple, fast, and easy-to-use solution for the needs of today's organizations; quick access to business answers can be used to gain a competitive edge, lower costs, and more. This IBM Redbooks® publication introduces the concepts of DB2 with BLU Acceleration. It discusses the steps to move from a relational database to using BLU Acceleration, optimizing BLU usage, and deploying BLU into existing analytic solutions today, with an example of IBM Cognos®. This book also describes integration of DB2 with BLU Acceleration into SAP Business Warehouse (SAP BW) and SAP's near-line storage solution on DB2. This publication is intended to be helpful to a wide-ranging audience, including those readers who want to understand the technologies and those who have planning, deployment, and support responsibilities.

**Vector Biology, Ecology and Control** Jan 27 2020 The control of mosquitoes and other insect vectors of human pathogens in an area-wide, environmentally and sustainable way is critical to solving global health problems in the developing world but also to industrialized countries that already have in place efficient vector control programs. The rapid spread of West Nile virus through the United States provides one example of how even a highly developed country can be relatively powerless against the spread of mosquito-borne disease. This volume illustrates how the efforts over half a century of a single investigator, Mir S. Mulla, and his students and collaborators have achieved sustainable vector insect control in regions of the world extending from the south-western United States to south-east Asia. These control strategies have been refined over these decades and now are employed in a diversity of ecosystems. Increased public awareness of global health and the importance placed on this for the future well-being of the entire human population makes the deployment and refinement of these strategies even more timely.

*The Index of Coincidence and Its Applications in Cryptanalysis* Sep 22 2019

**FE Mechanical Practice Problems** Jul 13 2021 \*Add the convenience of accessing this book anytime, anywhere on your personal device with the eBook version for only \$30 at [ppi2pass.com/etextbook-program](http://ppi2pass.com/etextbook-program). \* FE Mechanical Practice Problems offers comprehensive practice for the NCEES FE Electrical and Computer exam. FE Mechanical Practice Problems features include: over 460 three-minute, multiple-choice, exam-like practice problems to illustrate the type of problems you'll encounter during the exam clear, complete, and easy-to-follow solutions to deepen your understanding of all knowledge areas covered in the exam step-by-step calculations using equations and nomenclature from the NCEES FE Reference Handbook to familiarize you with the reference you'll have on exam day Exam Topics Covered Computational Tools Dynamics, Kinematics, and Vibrations Electricity and Magnetism Engineering Economics Ethics and Professional Practice Fluid Mechanics Heat Transfer Material Properties and Processing Mathematics Materials Measurement, Instrumentation, and Controls Mechanical Design and Analysis Mechanics of Materials Probability and Statistics Statics Thermodynamics

[SAARC and European Union](#) Dec 26 2019

**Polymer Optical Fibres** Aug 14 2021 Polymer Optical Fibres: Fibre Types, Materials, Fabrication, Characterization, and Applications explores polymer optical fibers, specifically their materials, fabrication, characterization, measurement techniques, and applications. Optical effects, including light propagation, degrading effects of attenuation, scattering, and dispersion, are explained. Other important parameters like mechanical strength, operating temperatures, and processability are also described. Polymer optical fibers (POF) have a number of advantages over glass fibers, such as low cost, flexibility, low weight, electromagnetic immunity, good bandwidth, simple installation, and mechanical stability. Provides systematic and comprehensive coverage of materials, fabrication, properties, measurement techniques, and applications of POF. Focuses on industry needs in communication, illumination and sensors, the automotive industry, and medical and biotechnology. Features input from leading experts in POF technology, with experience spanning optoelectronics, polymer, and textiles. Explains optical effects, including light propagation, degrading effects of attenuation, scattering, and dispersion.

**Particle-Induced X-Ray Emission Spectrometry (PIXE)** Jul 25 2022 The authoritative handbook to exploiting the full power and versatility of PIXE—now and in the next century Respected for its practical accuracy and detection range of parts per million, particle-induced X-ray emission has enjoyed a secure place in the analytical arsenal of the nuclear physics laboratory. Yet, its undeniable analytical potential in other areas of science has scarcely been tapped. This unique reference, from PIXE specialists in biomedicine, atmospheric science, earth science, and art and archaeology, features a user-based look at PIXE's conceptual basics and methodology, with a view toward new and creative analytical work. Touching on every facet of PIXE technology, from basic instrumentation, specimens, the characteristics of X-ray spectroscopy, standardization of quantitative analysis, to the accuracy of PIXE analysis and its limits of detection, the book offers an unprecedented look at the newer uses of PIXE in such areas as: Applications of macro- and micro-PIXE in medicine, zoology, and botany Analysis of atmospheric aerosols Geological and extra-terrestrial material Analysis of gem stones, pottery, glass, and alloys As an exploratory tool for pigments and paintings and "paper-like" materials Complete with a comparative look contrasting PIXE with more conventional forms of analysis, this important reference is key to grasping the technique's practical specifics and exploiting its full analytical potential.

**Short Circuits in Power Systems** Apr 29 2020 CD-ROM contains: 2 software programs to carry out simplified short circuit calculations.

**Handbook on Modelling for Discrete Optimization** Apr 22 2022 This book aims to demonstrate and detail the pervasive nature of Discrete Optimization. The handbook couples the difficult, critical-thinking aspects of mathematical modeling with the hot area of discrete optimization. It is done with an academic treatment outlining the state-of-the-art for researchers across the domains of the Computer Science, Math Programming, Applied Mathematics, Engineering, and Operations Research. The book utilizes the tools of mathematical modeling, optimization, and integer programming to solve a broad range of modern problems.

*Coherent Generators* Nov 05 2020

**Beginning Oracle SQL for Oracle Database 18c** Mar 21 2022 Start developing with Oracle SQL. This book is a one-stop introduction to everything you need to know about getting started developing an Oracle Database. You'll learn about foundational concepts, setting up a simple schema, adding data, reading data from the database, and making changes. No experience with databases is required to get started. Examples in the book are built around Oracle Live SQL, a freely available, online sandbox for practicing and experimenting with SQL statements, and Oracle Express Edition, a free version of Oracle Database that is available for download. A marquee feature of Beginning Oracle SQL for Oracle Database 18c is the small chapter size. Content is divided into easily digestible chunks that can be read and practiced in very short intervals of time, making this the ideal book for a busy professional to learn from. Even just a 15-20 minute block of free time can be put to good use. Author Ben Brumm begins by helping you understand what a database is, and getting you set up with a sandbox in which to practice the SQL that you are learning. From there, easily digestible chapters cover, point-by-point, the different aspects of writing queries to get data out of a database. You'll also learn about creating tables and getting data into the database. Crucial topics such as working with nulls and writing analytic queries are given the attention they deserve, helping you to avoid pitfalls when writing queries for production use. What You'll Learn Create, update, and delete tables in an Oracle database Add, update, delete data from those database tables Query and view data stored in your database Manipulate and transform data using in-built database functions and features Correctly choose when to use Oracle-specific syntax and features Who This Book Is For Those new to Oracle who are planning to develop software using Oracle as the back-end data store. The book is also for those who are getting started in software development and realize they need to learn some kind of database language. Those who are learning software development on the side of their normal job, or learning it as a college student, who are ready to learn what a database is and how to use it also will find this book useful.

**Smoked Cocktails** Mar 29 2020 Are you looking for a practical guide to learn everything you need (and more) to make superb smoky cocktails? If yes, this book is for you, keep reading... Although not new to the world of mixology, the smoking technique is gaining more and more ground and becoming a real trend. The visual effect of the service is combined with the contrast between the scents and taste of the drink, leaving the observer enraptured before and after tasting. There is a balance between adding a creative twist to cocktails for dramatic effect and ensuring techniques that enhance the flavours of your drinks. In this guide you'll hit exactly that point. This guide will take you step-by-step through every aspect of implementing smoking into the toolkit of your mixologist skills. From the various types of wood to garnishing, every aspect is covered in detail to enable you to make eye-catching cocktails as soon as you read on... Here is what you will discover in detail in this guide: The history, origins and legends behind the birth of cocktails and why they are called so. A comprehensive and detailed encyclopaedia of cocktails: families, different glasses, formulas and much more... 14 golden tips from the masters of mixology that will give you an unfair advantage over others. An in-depth analysis of smoked cocktails that will give you an insight into the whole theory around smoky drinks A step-by-step process for creating wonderfully delicious cocktails that will blow your friends or customers' minds Dozens of quick and easy recipes to create steaming cocktails for every taste and preference And much, much more! Whether you are a professional bartender, or just an avid mixologist, smoking is a skill that can really make a big impact. Trial and error (and a good dose of common sense) will take you far when experimenting with smoking of cocktails... Are you ready to start? Click on the "buy now" button and get started today!

**Optical Materials** Oct 28 2022 Optical Materials, Second Edition, presents, in a unified form, the underlying physical and structural processes that determine the optical behavior of materials. It does this by combining elements from physics, optics, and materials science in a seamless manner, and introducing quantum mechanics when needed. The book groups the characteristics of optical materials into classes with similar behavior. In treating each type of material, the text pays particular attention to atomic composition and chemical makeup, electronic states and band structure, and physical microstructure, so that the reader will gain insight into the kinds of materials engineering and processing conditions that are required to produce a material exhibiting a desired optical property. The physical principles are presented on many levels, including a physical explanation, followed by formal mathematical support and examples and methods of measurement. The reader may overlook the equations with no loss of comprehension, or may use the text to find appropriate equations for calculations of optical properties. Includes a fundamental description of optical materials at the beginner and advanced levels Provides a thorough coverage of the field and presents new concepts in an easy to understand manner that combines written explanations and equations Serves as a valuable toolbox of applications and equations for the working reader

**Ceramic Powder Science [proceedings of the Ceramic Powder Science and Technology: Synthesis, Processing, and Characterization Conference, August 3-6, 1986, Boston, Massachusetts]** Jan 19 2022

**Handbook of Multibiometrics** Mar 09 2021 Details multimodal biometrics and its exceptional utility for increasingly reliable human recognition systems. Reveals the substantial advantages of multimodal systems over conventional identification methods.

**Vegan Virgin Valentine** Aug 22 2019 "Don't miss this." -TEEN PEOPLE Mara Valentine is in control. She's a straight-A senior, a vegan, and her parents' pride and joy. She's neck-and-neck with her womanizing ex-boyfriend for number-one class ranking and plans to kick his salutatorian butt on her way out the door to Yale. Mara has her remaining months in Brockport all planned out, but the plan does not include having V, her slutty, pot-smoking, sixteen-year-old niece - yes, niece - come to live with her family. Nor does it involve lusting after her boss or dreaming about grilled cheese sandwiches every night. What does a control freak like Mara do when things start spinning wildly out of control? With insight, authenticity, and a healthy dose of humor, Carolyn Mackler creates an evolving Type A heroine that every reader will recognize - and root for.

**Infiltration of Water Into the Soil** Feb 08 2021

**Adobe After Effects 3.1** Oct 04 2020 Written by the staff of the Adobe After Effects product team, this book is the fastest, easiest way to learn and master Adobe After Effects and have it up and working in hours. The CD contains movies, clips, images, sounds, and type used in tutorial files.

**Short Circuits in Power Systems** Oct 16 2021 Reflecting the changes to the all-important short circuit calculations in three-phase power systems according to IEC 60909-0 standard, this new edition of the practical guide retains its proven and unique concept of explanations, calculations and real-life examples of short circuits in electrical networks. It has also been completely revised and expanded by 20% to include the standard-compliant prevention of short circuits in electrical networks for photovoltaics and wind energy. By understanding the theory any software allows users to perform all the necessary calculations with ease so they can work on the design and application of low- and high-voltage power systems. This book is a practitioner's guide intended for students, electrical engineers, engineers in power technology, the electrotechnical industry, engineering consultants, energy suppliers, chemical engineers and physicists in industry.

*Text, Speech and Dialogue* Nov 17 2021 This book constitutes the refereed proceedings of the 15th International Conference on Text, Speech and Dialogue, TSD 2012, held in Brno, Czech Republic, in September 2012. The

82 papers presented together with 2 invited talks were carefully reviewed and selected from 173 submissions. The papers are organized in topical sections on corpora and language resources, speech recognition, tagging, classification and parsing of text and speech, speech and spoken language generation, semantic processing of text and speech, integrating applications of text and speech processing, machine translation, automatic dialogue systems, multimodal techniques and modeling.

[Defending America's Coasts, 1775-1950](#) Dec 06 2020

[Power System Dynamics and Stability](#) Nov 29 2022

**Applications of Stochastic Programming** May 23 2022 Consisting of two parts, this book presents papers describing publicly available stochastic programming systems that are operational. It presents a diverse collection of application papers in areas such as production, supply chain and scheduling, gaming, environmental and pollution control, financial modeling, telecommunications, and electricity.

**An Introduction to XML Query Processing and Keyword Search** Sep 15 2021 "An Introduction to XML Query Processing and Keyword Search" systematically and comprehensively covers the latest advances in XML data searching. It presents an extensive overview of the current query processing and keyword search techniques on XML data, including XML labeling schemes, indexing, processing on order and un-order XML tree patterns, XML query optimization, results estimation, and XML keyword searches, which are elaborated in separate chapters. Graduate students and researchers in the field of XML data searching will find this book an invaluable resource. Prof. Jiaheng Lu is an associate professor at Renmin University of China's School of Information.

**Progress in Methodologies for the Assessment of Passive Safety System Reliability in Advanced Reactors** Dec 18 2021 This publication summarizes the results of an IAEA coordinated research project on the development of advanced methodologies for the assessment of passive safety system performance in advanced reactors. This includes discussions on various methodologies to assess the performance of passive engineered safety features in innovative small reactors, including the Indian AHWR 300 LEU and the Argentinian CAREM25. The publication focuses on the different reliability assessment approaches, methodologies, analysis and evaluation of the results and technical challenges. It provides the insights resulting from the analysis on the technical issues associated with assessing the reliability of passive systems in the context of nuclear safety and probabilistic safety analysis. A viable path towards the implementation of the research efforts in the related areas is also delineated.

**IBM Cognos Business Intelligence V10.1 Handbook** Jun 24 2022 IBM® Cognos® Business Intelligence (BI) helps organizations meet strategic objectives and provides real value for the business by delivering the information everyone needs while also reducing the burden on IT. This IBM Redbooks® publication addresses IBM Cognos Business Intelligence V10.1. You can use this book to: - Understand core features of IBM Cognos BI V10.1 - Realize the full potential of IBM Cognos BI - Learn by example with practical scenarios This book uses a fictional business scenario to demonstrate the power of IBM Cognos BI. The book is primarily focused on the roles of Advanced Business User, Professional Report Author, Modeler, Administrator, and IT Architect.

**Photon-Counting Image Sensors** Nov 24 2019 This book is a printed edition of the Special Issue "Photon-Counting Image Sensors" that was published in Sensors

**Power System Dynamics and Stability** May 31 2020 Classic power system dynamics text now with phasor measurement and simulation toolbox This new edition addresses the needs of dynamic modeling and simulation relevant to power system planning, design, and operation, including a systematic derivation of synchronous machine dynamic models together with speed and voltage control subsystems. Reduced-order modeling based on integral manifolds is used as a firm basis for understanding the derivations and limitations of lower-order dynamic models. Following these developments, multi-machine model interconnected through the transmission network is formulated and simulated using numerical simulation methods. Energy function methods are discussed for direct evaluation of stability. Small-signal analysis is used for determining the electromechanical modes and mode-shapes, and for power system stabilizer design. Time-synchronized high-sampling-rate phasor measurement units (PMUs) to monitor power system disturbances have been implemented throughout North America and many other countries. In this second edition, new chapters on synchrophasor measurement and using the Power System Toolbox for dynamic simulation have been added. These new materials will reinforce power system dynamic aspects treated more analytically in the earlier chapters. Key features: Systematic derivation of synchronous machine dynamic models and simplification. Energy function methods with an emphasis on the potential energy boundary surface and the controlling unstable equilibrium point approaches. Phasor computation and synchrophasor data applications. Book companion website for instructors featuring solutions and PowerPoint files. Website for students featuring MATLABM files. Power System Dynamics and Stability, 2nd Edition, with Synchrophasor Measurement and Power System Toolbox combines theoretical as well as practical information for use as a text for formal instruction or for reference by working engineers.

**IBM Cognos Dynamic Query** Dec 30 2022 This IBM® Redbooks® publication explains how IBM Cognos® Business Intelligence (BI) administrators, authors, modelers, and power users can use the dynamic query layer effectively. It provides guidance for determining which technology within the dynamic query layer can best satisfy your business requirements. Administrators can learn how to tune the query service effectively and preferred practices for managing their business intelligence content. This book includes information about metadata modeling of relational data sources with IBM Cognos Framework Manager. It includes considerations that can help you author high-performing applications that satisfy analytical requirements of users. This book provides guidance for troubleshooting issues related to the dynamic query layer of Cognos BI. Related documents: Solution Guide : Big Data Analytics with IBM Cognos BI Dynamic Query Blog post : IBM Cognos Dynamic Query Extensibility

[Aerial Phototopography](#) Feb 26 2020

**Murach's Java Servlets and JSP** Jan 07 2021 Provides information on using servlets and JavaServer Pages to create Web applications that use the MVC pattern.

**OS X and iOS Kernel Programming** Sep 03 2020 OS X and iOS Kernel Programming combines essential operating system and kernel architecture knowledge with a highly practical approach that will help you write effective kernel-level code. You'll learn fundamental concepts such as memory management and thread synchronization, as well as the I/O Kit framework. You'll also learn how to write your own kernel-level extensions, such as device drivers for USB and Thunderbolt devices, including networking, storage and audio drivers. OS X and iOS Kernel Programming provides an incisive and complete introduction to the XNU kernel, which runs iPhones, iPads, iPods, and Mac OS X servers and clients. Then, you'll expand your horizons to examine Mac OS X and iOS system architecture. Understanding Apple's operating systems will allow you to write efficient device drivers, such as those covered in the book, using I/O Kit. With OS X and iOS Kernel Programming, you'll: Discover classical kernel architecture topics such as memory management and thread synchronization Become well-versed in the intricacies of the kernel development process by applying kernel debugging and profiling tools Learn how to deploy your kernel-level projects and how to successfully package them Write code that interacts with hardware devices Examine easy to understand example code that can also be used in your own projects Create network filters Whether you're a hobbyist, student, or professional engineer, turn to OS X and iOS Kernel Programming and find the knowledge you need to start developing

**Human Identification Based on Gait** Oct 24 2019 Human Identification Based on Gait is the first book to address gait as a biometric. Biometrics is now in a unique position where it affects most people's lives. This is especially true of "gait", which is one of the most recent biometrics. Recognizing people by the way they walk and run implies analyzing movement which, in turn, implies analyzing sequences of images, thus requiring memory and computational performance that became available only recently. Human Identification Based on Gait introduces developments from distinguished researchers within this relatively new area of biometrics. This book clearly establishes how human gait is biometric. Human Identification Based on Gait is structured to meet the needs of professionals in industry, as well as advanced-level students in computer science.

**IBM Cognos Business Intelligence** Jul 01 2020 Written as a practical guide, this book will show you how to manage your reporting environment using IBM Cognos 10 and make the most out of BI tools within your business - taking a hands-on approach to stimulate learning and develop your understanding. If you are an IBM Cognos or Business Intelligence developer or consultant, have a basic knowledge of Cognos 10 BI and a good level of understanding of Cognos 8 then this book is for you

**Electric and Hybrid Vehicles** Feb 20 2022 An advanced level introductory book covering fundamental aspects, design and dynamics of electric and hybrid electric vehicles There is significant demand for an understanding of the fundamentals, technologies, and design of electric and hybrid electric vehicles and their components from researchers, engineers, and graduate students. Although there is a good body of work in the literature, there is still a great need for electric and hybrid vehicle teaching materials. Electric and Hybrid Vehicles: Technologies, Modeling and Control - A Mechatronic Approach is based on the authors' current research in vehicle systems and will include chapters on vehicle propulsion systems, the fundamentals of vehicle dynamics, EV and HEV technologies, chassis systems, steering control systems, and state, parameter and force estimations. The book is highly illustrated, and examples will be given throughout the book based on real applications and challenges in the automotive industry. Designed to help a new generation of engineers needing to master the principles of and further advances in hybrid vehicle technology Includes examples of real applications and challenges in the automotive industry with problems and solutions Takes a mechatronics approach to the study of electric and hybrid electric vehicles, appealing to mechanical and electrical engineering interests Responds to the increase in demand of universities offering courses in newer electric vehicle technologies

**OpenShift for Developers** Jun 12 2021 Keen to build web applications for the cloud? Get a quick hands-on introduction to OpenShift, the open source Platform as a Service (PaaS) offering from Red Hat. With this practical guide, you'll learn the steps necessary to build, deploy, and host a complete real-world application on OpenShift without having to slog through long, detailed explanations of the technologies involved. OpenShift enables you to use Docker application containers and the Kubernetes cluster manager to automate the way you create, ship, and run applications. Through the course of the book, you'll learn how to use OpenShift and the Wildfly application server to build and then immediately deploy a Java application online. Learn about OpenShift's core technology, including Docker-based containers and Kubernetes Use a virtual machine with OpenShift installed and configured on your local environment Create and deploy your first application on the OpenShift platform Add language runtime dependencies and connect to a database Trigger an automatic rebuild and redeployment when you push changes to the repository Get a working environment up in minutes with application templates Use commands to check and debug your application Create and build Docker-based images for your application

**Analysis and Simulation of Noise in Nonlinear Electronic Circuits and Systems** Aug 26 2022 In electronic circuit and system design, the word noise is used to refer to any undesired excitation on the system. In other contexts, noise is also used to refer to signals or excitations which exhibit chaotic or random behavior. The source of noise can be either internal or external to the system. For instance, the thermal and shot noise generated within integrated circuit devices are in internal noise sources, and the noise picked up from the environment through electromagnetic interference is an external one. Electromagnetic interference can also occur between different components of the same system. In integrated circuits (ICs), signals in one part of the system can propagate to the other parts of the same system through electromagnetic coupling, power supply lines and the IC substrate. For instance, in a mixed-signal IC, the switching activity in the digital parts of the circuit can adversely affect the performance of the analog section of the circuit by traveling through the power supply lines and the substrate. Prediction of the effect of these noise sources on the performance of an electronic system is called noise analysis or noise simulation. A methodology for the noise analysis or simulation of an electronic system usually has the following four components: 2 NOISE IN NONLINEAR ELECTRONIC CIRCUITS • Mathematical representations or models for the noise sources. • Mathematical model or representation for the system that is under the influence of the noise sources.