
Alan Turing The Enigma

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Alan Turing: The Enigma *Princeton University Press*

A NEW YORK TIMES BESTSELLER The official book behind the Academy Award-winning film *The Imitation Game*, starring Benedict Cumberbatch and Keira Knightley It is only a slight exaggeration to say that the British mathematician Alan Turing (1912-1954) saved the Allies from the Nazis, invented the computer and artificial intelligence, and anticipated gay liberation by decades--all before his suicide at age forty-one. This New York Times--bestselling biography of the founder of computer science, with a new preface by the author that addresses Turing's royal pardon in 2013, is the definitive account of an extraordinary mind and life. Capturing both the inner and outer drama of Turing's life, Andrew Hodges tells how Turing's revolutionary idea of 1936--the concept of a universal machine--laid the foundation for the modern computer and how Turing brought the idea to practical realization in 1945 with his electronic design. The book also tells how this work was directly related to Turing's leading role in breaking the German Enigma ciphers during World War II, a scientific triumph that was critical to Allied victory in the Atlantic. At the same time, this is the tragic account of a man who, despite his wartime service, was eventually arrested, stripped of his security clearance, and forced to undergo a humiliating treatment program--all for trying to live honestly in a society that defined homosexuality as a crime. The inspiration for a major motion picture starring Benedict Cumberbatch and Keira Knightley, *Alan Turing: The Enigma* is a gripping story of mathematics, computers, cryptography, and homosexual persecution.

Alan Turing *Simon & Schuster*

The story of Alan Turing, World War II's secret hero, whose brilliant mathematical work resulted in the "Enigma" machine which broke the German military code and gave the Allied forces advance knowledge of German military movements

Alan Turing: The Enigma *Princeton University Press*

A NEW YORK TIMES BESTSELLER The official book behind the Academy Award-winning film *The Imitation Game*, starring Benedict Cumberbatch and Keira Knightley It is only a slight exaggeration to say that the British mathematician Alan Turing (1912-1954) saved the Allies from the Nazis,

invented the computer and artificial intelligence, and anticipated gay liberation by decades--all before his suicide at age forty-one. This New York Times--bestselling biography of the founder of computer science, with a new preface by the author that addresses Turing's royal pardon in 2013, is the definitive account of an extraordinary mind and life. Capturing both the inner and outer drama of Turing's life, Andrew Hodges tells how Turing's revolutionary idea of 1936--the concept of a universal machine--laid the foundation for the modern computer and how Turing brought the idea to practical realization in 1945 with his electronic design. The book also tells how this work was directly related to Turing's leading role in breaking the German Enigma ciphers during World War II, a scientific triumph that was critical to Allied victory in the Atlantic. At the same time, this is the tragic account of a man who, despite his wartime service, was eventually arrested, stripped of his security clearance, and forced to undergo a humiliating treatment program--all for trying to live honestly in a society that defined homosexuality as a crime. The inspiration for a major motion picture starring Benedict Cumberbatch and Keira Knightley, *Alan Turing: The Enigma* is a gripping story of mathematics, computers, cryptography, and homosexual persecution.

Alan Turing: The Enigma *National Geographic Books*

The official book behind the Academy Award-winning film *The Imitation Game*, starring Benedict Cumberbatch and Keira Knightley Alan Turing was the mathematician whose cipher-cracking transformed the Second World War. Taken on by British Intelligence in 1938, as a shy young Cambridge don, he combined brilliant logic with a flair for engineering. In 1940 his machines were breaking the Enigma-enciphered messages of Nazi Germany's air force. He then headed the penetration of the super-secure U-boat communications. But his vision went far beyond this achievement. Before the war he had invented the concept of the universal machine, and in 1945 he turned this into the first design for a digital computer. Turing's far-sighted plans for the digital era forged ahead into a vision for Artificial Intelligence. However, in 1952 his homosexuality rendered him a criminal and he was subjected to humiliating treatment. In 1954, aged 41, Alan Turing took his own life.

Alan Turing *Arcturus Publishing*

Spring 1940: The Battle of the Atlantic rages. Vulnerable merchant convoys are at the mercy of German U-boats controlled by a cunning system of coded messages created by a machine called Enigma. Only one man believes that these codes can be broken - mathematician and Bletchley Park cryptanalyst Alan Turing. Winston Churchill later described Turing's success in breaking the Enigma codes as the single biggest contribution to victory against Nazi Germany. Unheralded during his lifetime, Turing is now recognized as the father of modern computer science and as possessing one of the greatest minds of the 20th century. Drawing on original source material, interviews and photographs, this book explores Turing's groundbreaking work as well as revealing the private side of a complex and unlikely national hero.

Alan Turing

Prof: Alan Turing Decoded *Pitkin*

Alan Turing was an extraordinary man who crammed into a life of only 42 years the careers of mathematician, codebreaker, computer scientist and biologist. He is widely regarded as a war hero grossly mistreated by his unappreciative country and it has become hard to disentangle the real man from the story. It is easy to cast him as a misfit, the stereotypical professor. But actually Alan Turing was never a professor, and his nickname 'Prof' was given by his codebreaking friends at Bletchley Park. Now, Alan Turing's nephew, Dermot Turing, has taken a fresh look at the influences on Alan Turing's life and creativity, and the later creation of a legend. For the first time it is possible to disclose the real character behind the cipher-text: how did Alan's childhood experiences influence the man? Who were the influential figures in Alan's formative years? How did his creative ideas evolve? Was he really a solitary, asocial genius? What was his wartime work after 1942, and why was it kept even more secret than the Enigma story? What is the truth about Alan Turing's conviction for gross indecency, and did he commit suicide? What is the significance of the Royal Pardon granted in 2013? In Dermot's own style he takes a vibrant and entertaining approach to the life and work of a true genius.

Alan Turing: Enigma *Independently Published*

Alan Turing: Enigma: The Incredible True Story of the Man Who Cracked The Code If you have ever used a computer, you owe that joy to Alan Turing. Turing is known by many as the Father of the Modern Computer for his conception of the theoretical stored-memory machine (known as the Turing Machine) and for the subsequent implementation of this idea in the creation of some of the world's first working computers, the Automatic Computing Engine, and the Manchester Mark 1. Impressive as they are, though, Turing's contributions to computer science are not necessarily his most famous or influential projects. Alan Turing was one of the most significant figures in the Allied victory of World War Two, thanks to his ingenious code breaking skills and the invention of the British Bombe at Bletchley Park. In his later life, Turing even dabbled in artificial intelligence, and biology, creating concepts that are still being investigated today. Until recently, Alan Turing had often been overlooked as an important figure in history. Thanks to in-depth biographies like Andrew Hodges' Alan Turing: The Enigma, and film depictions of Turing's life, like The Imitation Game, based on Hodges' book, Alan Turing is quickly becoming a household name, as people begin to recognize that his contributions to various fields were so influential they actually changed the course of human history.

The Essential Turing *Clarendon Press*

Alan Turing, pioneer of computing and WWII codebreaker, is one of the most important and influential thinkers of the twentieth century. In this volume for the first time his key writings are made available to a broad, non-specialist readership. They make fascinating reading both in their own right and for their historic significance: contemporary computational theory, cognitive science, artificial intelligence, and artificial life all spring from this ground-breaking work, which is also rich in philosophical and logical insight. An introduction by leading Turing expert Jack Copeland provides the background and guides the reader through the selection. About Alan Turing Alan Turing FRS

OBE, (1912-1954) studied mathematics at King's College, Cambridge. He was elected a Fellow of King's in March 1935, at the age of only 22. In the same year he invented the abstract computing machines - now known simply as Turing machines - on which all subsequent stored-program digital computers are modelled. During 1936-1938 Turing continued his studies, now at Princeton University. He completed a PhD in mathematical logic, analysing the notion of 'intuition' in mathematics and introducing the idea of oracular computation, now fundamental in mathematical recursion theory. An 'oracle' is an abstract device able to solve mathematical problems too difficult for the universal Turing machine. In the summer of 1938 Turing returned to his Fellowship at King's. When WWII started in 1939 he joined the wartime headquarters of the Government Code and Cypher School (GC&CS) at Bletchley Park, Buckinghamshire. Building on earlier work by Polish cryptanalysts, Turing contributed crucially to the design of electro-mechanical machines ('bombes') used to decipher Enigma, the code by means of which the German armed forces sought to protect their radio communications. Turing's work on the version of Enigma used by the German navy was vital to the battle for supremacy in the North Atlantic. He also contributed to the attack on the cyphers known as 'Fish'. Based on binary teleprinter code, Fish was used during the latter part of the war in preference to morse-based Enigma for the encryption of high-level signals, for example messages from Hitler and other members of the German High Command. It is estimated that the work of GC&CS shortened the war in Europe by at least two years. Turing received the Order of the British Empire for the part he played. In 1945, the war over, Turing was recruited to the National Physical Laboratory (NPL) in London, his brief to design and develop an electronic computer - a concrete form of the universal Turing machine. Turing's report setting out his design for the Automatic Computing Engine (ACE) was the first relatively complete specification of an electronic stored-program general-purpose digital computer. Delays beyond Turing's control resulted in NPL's losing the race to build the world's first working electronic stored-program digital computer - an honour that went to the Royal Society Computing Machine Laboratory at Manchester University, in June 1948. Discouraged by the delays at NPL, Turing took up the Deputy Directorship of the Royal Society Computing Machine Laboratory in that year. Turing was a founding father of modern cognitive science and a leading early exponent of the hypothesis that the human brain is in large part a digital computing machine, theorising that the cortex at birth is an 'unorganised machine' which through 'training' becomes organised 'into a universal machine or something like it'. He also pioneered Artificial Intelligence. Turing spent the rest of his short career at Manchester University, being appointed to a specially created Readership in the Theory of Computing in May 1953. He was elected a Fellow of the Royal Society of London in March 1951 (a high honour).

Alan Turing: His Work and Impact *Elsevier*

In this 2013 winner of the prestigious R.R. Hawkins Award from the Association of American Publishers, as well as the 2013 PROSE Awards for Mathematics and Best in Physical Sciences & Mathematics, also from the AAP, readers will find many of the most significant contributions from the four-volume set of the Collected Works of A. M. Turing. These contributions, together with commentaries from current experts in a wide spectrum of fields and backgrounds, provide insight on the significance and contemporary impact of Alan Turing's work. Offering a more modern

perspective than anything currently available, *Alan Turing: His Work and Impact* gives wide coverage of the many ways in which Turing's scientific endeavors have impacted current research and understanding of the world. His pivotal writings on subjects including computing, artificial intelligence, cryptography, morphogenesis, and more display continued relevance and insight into today's scientific and technological landscape. This collection provides a great service to researchers, but is also an approachable entry point for readers with limited training in the science, but an urge to learn more about the details of Turing's work. 2013 winner of the prestigious R.R. Hawkins Award from the Association of American Publishers, as well as the 2013 PROSE Awards for Mathematics and Best in Physical Sciences & Mathematics, also from the AAP Named a 2013 Notable Computer Book in Computing Milieux by Computing Reviews Affordable, key collection of the most significant papers by A.M. Turing Commentary explaining the significance of each seminal paper by preeminent leaders in the field Additional resources available online

X, Y & Z

December, 1932 In the bathroom of a Belgian hotel, a French spymaster photographs secret documents - operating instructions of the cipher machine, Enigma. A few weeks later a mathematician in Warsaw begins to decipher the coded communications of the Third Reich and lay the foundations for the code-breaking operation at Bletchley Park. The co-operation between France, Britain and Poland is given the cover name 'X, Y & Z'. December, 1942 It is the middle of World War II. The Polish code-breakers are in France on the run from the Gestapo. People who know the Enigma secret are not supposed to be in the combat zone for fear of capture so MI6 devises a plan to exfiltrate them. If it goes wrong, if they are caught, they could give away the greatest secret of the war. X, Y & Z describes how French, British and Polish secret services came together to unravel the Enigma machine. It tells of how, under the very noses of the Germans, Enigma code-breaking continued in Vichy France. And how code-breakers from Poland continued their work for Her Majesty's Secret Service, watching the USSR's first steps of the Cold War. The people of X, Y and Z were eccentric, colourful and caught up in world events that they could watch not control. This is their story...

Alan Turing, Enigma Springer

Alan Turing, Enigma ist die Biographie des legendären britischen Mathematikers, Logikers, Kryptoanalytikers und Computerkonstruktors Alan Mathison Turing (1912-1954). Turing war einer der bedeutendsten Mathematiker dieses Jahrhunderts und eine höchst exzentrische Persönlichkeit. Er gilt seit seiner 1937 erschienenen Arbeit "On Computable Numbers", in der er das Prinzip des abstrakten Universalrechners entwickelte, als der Erfinder des Computers. Er legte auch die Grundlagen für das heute "Künstliche Intelligenz" genannte Forschungsgebiet. Turings zentrale Frage "Kann eine Maschine denken?" war das Motiv seiner Arbeit und wird die Schlüsselfrage des Umgangs mit dem Computer werden. Die bis 1975 geheimgehaltene Tätigkeit Turings für den britischen Geheimdienst, die zur Entschlüsselung des deutschen Funkverkehrs führte, trug entscheidend zum Verlauf und Ausgang des Zweiten Weltkriegs bei.

Alan M. Turing Cambridge University Press

Containing never-before-published material, this fascinating account sheds new light on one of the greatest figures of the twentieth century.

Reflections of Alan Turing The History Press

Everyone knows the story of the codebreaker and computer science pioneer Alan Turing. Except When Dermot Turing is asked about his famous uncle, people want to know more than the bullet points of his life. They want to know everything was Alan Turing actually a codebreaker? What did he make of artificial intelligence? What is the significance of Alan Turings trial, his suicide, the Royal Pardon, the £50 note and the film The Imitation Game? In Reflections of Alan Turing, Dermot strips off the layers to uncover the real story. Its time to discover a fresh legacy of Alan Turing for the twenty-first century.

Natural Wonders Every Child Should Know

Turing's Vision MIT Press

In 1936, when he was just twenty-four years old, Alan Turing wrote a remarkable paper in which he outlined the theory of computation, laying out the ideas that underlie all modern computers. This groundbreaking and powerful theory now forms the basis of computer science. In Turing's Vision, Chris Bernhardt explains the theory, Turing's most important contribution, for the general reader. Bernhardt argues that the strength of Turing's theory is its simplicity, and that, explained in a straightforward manner, it is eminently understandable by the nonspecialist. As Marvin Minsky writes, "The sheer simplicity of the theory's foundation and extraordinary short path from this foundation to its logical and surprising conclusions give the theory a mathematical beauty that alone guarantees it a permanent place in computer theory." Bernhardt begins with the foundation and systematically builds to the surprising conclusions. He also views Turing's theory in the context of mathematical history, other views of computation (including those of Alonzo Church), Turing's later work, and the birth of the modern computer. In the paper, "On Computable Numbers, with an Application to the Entscheidungsproblem," Turing thinks carefully about how humans perform computation, breaking it down into a sequence of steps, and then constructs theoretical machines capable of performing each step. Turing wanted to show that there were problems that were beyond any computer's ability to solve; in particular, he wanted to find a decision problem that he could prove was undecidable. To explain Turing's ideas, Bernhardt examines three well-known decision problems to explore the concept of undecidability; investigates theoretical computing machines, including Turing machines; explains universal machines; and proves that certain problems are undecidable, including Turing's problem concerning computable numbers.

Alan Turing

Alan Turing Alan Turing had a radical and ingenious mind. He is considered one of the fathers of artificial intelligence, and his theories on this matter range from purely mechanical to almost spiritual. During World War II, his decryption of the Nazis' Enigma codes proved vital for the Allied

victory over the Axis powers. Turing's fingerprints are everywhere, and yet his own country for quite some time failed to acknowledge it. It wasn't until 2009 that the then prime minister of the United Kingdom, Gordon Brown, issued an official, posthumous apology to Alan Turing for "the appalling way he was treated." To many, this was an admission that was far too long in coming. Inside you will read about... ✓ The Death of His First Love ✓ Turing Machines ✓ Breaking the Nazis' Enigma Codes ✓ Conviction and Chemical Castration ✓ The Poison Apple And much more! As the chronicling of this book demonstrates, Alan Turing's life was by no means easy; there were hardships, trials, and tribulations that would shake him to his core. But despite the tragic way his life ended by way of a poison apple, the spark ignited by Alan Turing's short life is still something exceedingly brilliant to behold. Series Information: World War 2 Biographies Book 7

The Turing Guide *Oxford University Press*

Alan Turing has long proved a subject of fascination, but following the centenary of his birth in 2012, the code-breaker, computer pioneer, mathematician (and much more) has become even more celebrated with much media coverage, and several meetings, conferences and books raising public awareness of Turing's life and work. This volume will bring together contributions from some of the leading experts on Alan Turing to create a comprehensive guide to Turing that will serve as a useful resource for researchers in the area as well as the increasingly interested general reader. The book will cover aspects of Turing's life and the wide range of his intellectual activities, including mathematics, code-breaking, computer science, logic, artificial intelligence and mathematical biology, as well as his subsequent influence.

Turing's Imitation Game *Cambridge University Press*

Can you tell the difference between talking to a human and talking to a machine? Or, is it possible to create a machine which is able to converse like a human? In fact, what is it that even makes us human? Turing's Imitation Game, commonly known as the Turing Test, is fundamental to the science of artificial intelligence. Involving an interrogator conversing with hidden identities, both human and machine, the test strikes at the heart of any questions about the capacity of machines to behave as humans. While this subject area has shifted dramatically in the last few years, this book offers an up-to-date assessment of Turing's Imitation Game, its history, context and implications, all illustrated with practical Turing tests. The contemporary relevance of this topic and the strong emphasis on example transcripts makes this book an ideal companion for undergraduate courses in artificial intelligence, engineering or computer science.

The Imitation Game *Abrams ComicArts*

Award winning authors Jim Ottaviani and Leland Purvis present a historically accurate graphic novel biography of English mathematician and scientist Alan Turing in *The Imitation Game*. English mathematician and scientist Alan Turing (1912-1954) is credited with many of the foundational principles of contemporary computer science. *The Imitation Game* presents a historically accurate graphic novel biography of Turing's life, including his groundbreaking work on the fundamentals of cryptography and artificial intelligence. His code breaking efforts led to the cracking of the German

Enigma during World War II, work that saved countless lives and accelerated the Allied defeat of the Nazis. While Turing's achievements remain relevant decades after his death, the story of his life in post-war Europe continues to fascinate audiences today. Award-winning duo Jim Ottaviani (the #1 New York Times bestselling author of *Feynman* and *Primates*) and artist Leland Purvis (an Eisner and Ignatz Award nominee and occasional reviewer for the *Comics Journal*) present a factually detailed account of Turing's life and groundbreaking research--as an unconventional genius who was arrested, tried, convicted, and punished for his openly gay lifestyle, and whose innovative work still fuels the computing and communication systems that define our modern world. Computer science buffs, comics fans, and history aficionados will be captivated by this riveting and tragic story of one of the 20th century's most unsung heroes.

The Codebreakers of Bletchley Park *Arcturus Publishing*

'Turing writes on codebreaking with understandable authority and compelling panache.' - Michael Smith, bestselling author of *Station X*. At Bletchley Park, some of Britain's most talented mathematicians, linguists, and intellectuals were assembled to break Nazi codes. Kept secret for nearly thirty years, we have now come to realise the crucial role that these codebreakers played in the Allied victory in World War II. Written by Dermot Turing - the nephew of famous codebreaker Alan Turing - this illustrated account provides unique insight into the behind-the-scenes action at Bletchley Park. Discover how brilliant and eccentric individuals such as Dilly Knox, Alan Turing and Joan Clarke were recruited, the social life that grew up around the park, and how they dealt with the ever-present burden of secrecy. Including a foreword by Professor Christopher Andrew of Cambridge University, author of MI5's official history *The Secret World*, this book brings to life the stories of the men and women who toiled day and night to crack the seemingly unbreakable enigma code.

Alan Turing *A&C Black*

The story of the mathematical genius and father of computing whose codebreaking changed the course of the Second World War.

The Secret Life of Bletchley Park *Aurum*

Bletchley Park was where one of the war's most famous - and crucial - achievements was made: the cracking of Germany's "Enigma" code in which its most important military communications were couched. This country house in the Buckinghamshire countryside was home to Britain's most brilliant mathematical brains, like Alan Turing, and the scene of immense advances in technology - indeed, the birth of modern computing. The military codes deciphered there were instrumental in turning both the Battle of the Atlantic and the war in North Africa. But, though plenty has been written about the boffins, and the codebreaking, fictional and non-fiction - from Robert Harris and Ian McEwan to Andrew Hodges' biography of Turing - what of the thousands of men and women who lived and worked there during the war? What was life like for them - an odd, secret territory between the civilian and the military? Sinclair McKay's book is the first history for the general reader of life at Bletchley Park, and an amazing compendium of memories from people now in their eighties - of skating on the frozen lake in the grounds (a depressed Angus Wilson, the novelist, once threw

himself in) – of a youthful Roy Jenkins, useless at codebreaking, of the high jinks at nearby accommodation hostels – and of the implacable secrecy that meant girlfriend and boyfriend working in adjacent huts knew nothing about each other's work.

Alan Turing's Systems of Logic *Princeton University Press*

A facsimile edition of Alan Turing's influential Princeton thesis Between inventing the concept of a universal computer in 1936 and breaking the German Enigma code during World War II, Alan Turing (1912–1954), the British founder of computer science and artificial intelligence, came to Princeton University to study mathematical logic. Some of the greatest logicians in the world—including Alonzo Church, Kurt Gödel, John von Neumann, and Stephen Kleene—were at Princeton in the 1930s, and they were working on ideas that would lay the groundwork for what would become known as computer science. This book presents a facsimile of the original typescript of Turing's fascinating and influential 1938 Princeton PhD thesis, one of the key documents in the history of mathematics and computer science. The book also features essays by Andrew Appel and Solomon Feferman that explain the still-unfolding significance of the ideas Turing developed at Princeton. A work of philosophy as well as mathematics, Turing's thesis envisions a practical goal—a logical system to formalize mathematical proofs so they can be checked mechanically. If every step of a theorem could be verified mechanically, the burden on intuition would be limited to the axioms. Turing's point, as Appel writes, is that "mathematical reasoning can be done, and should be done, in mechanizable formal logic." Turing's vision of "constructive systems of logic for practical use" has become reality: in the twenty-first century, automated "formal methods" are now routine. Presented here in its original form, this fascinating thesis is one of the key documents in the history of mathematics and computer science.

Alan Turing

The Annotated Turing *John Wiley & Sons*

Programming Legend Charles Petzold unlocks the secrets of the extraordinary and prescient 1936 paper by Alan M. Turing Mathematician Alan Turing invented an imaginary computer known as the Turing Machine; in an age before computers, he explored the concept of what it meant to be computable, creating the field of computability theory in the process, a foundation of present-day computer programming. The book expands Turing's original 36-page paper with additional background chapters and extensive annotations; the author elaborates on and clarifies many of Turing's statements, making the original difficult-to-read document accessible to present day programmers, computer science majors, math geeks, and others. Interwoven into the narrative are the highlights of Turing's own life: his years at Cambridge and Princeton, his secret work in cryptanalysis during World War II, his involvement in seminal computer projects, his speculations about artificial intelligence, his arrest and prosecution for the crime of "gross indecency," and his early death by apparent suicide at the age of 41.

Alan Turing

The Man Who Knew Too Much: Alan Turing and the Invention of the Computer (Great Discoveries) *W. W. Norton & Company*

Outlines the Bletchley Park mathematician's efforts to launch artificial intelligence innovations, describing his thwarted attempts to gain support for a programmable calculating machine, his contributions to cracking the Nazi Enigma code during World War II, and how the revelation of his homosexuality led to his tragic imprisonment and suicide. Reprint.

A Well-Ordered Thing *Princeton University Press*

Dmitrii Mendeleev (1834–1907) is a name we recognize, but perhaps only as the creator of the periodic table of elements. Generally, little else has been known about him. A Well-Ordered Thing is an authoritative biography of Mendeleev that draws a multifaceted portrait of his life for the first time. As Michael Gordin reveals, Mendeleev was not only a luminary in the history of science, he was also an astonishingly wide-ranging political and cultural figure. From his attack on Spiritualism to his failed voyage to the Arctic and his near-mythical hot-air balloon trip, this is the story of an extraordinary maverick. The ideals that shaped his work outside science also led Mendeleev to order the elements and, eventually, to engineer one of the most fascinating scientific developments of the nineteenth century. A Well-Ordered Thing is a classic work that tells the story of one of the world's most important minds.

Alan Turing

"It is only a slight exaggeration to say that the British mathematician Alan Turing (1912-1954) saved the Allies from the Nazis, invented the computer and artificial intelligence, and anticipated gay liberation by decades--all before his suicide at age forty-one. This New York Times?bestselling biography of the founder of computer science, with a new preface by the author that addresses Turing?s royal pardon in 2013, is the definitive account of an extraordinary mind and life."--Amazon.com.

Alan Turing

Japanese edition of Alan Turing: The Enigma: The Book That Inspired the Film "The Imitation Game." British mathematician Alan Turing is history's greatest cryptanalyst and father of computer science, who broke the impossible Enigma code, but his was a life also demonized for his homosexuality. Major Oscar winning motion picture "Imitation Game." In Japanese. Annotation copyright Tsai Fong Books, Inc. Distributed by Tsai Fong Books, Inc.

Alan Turing's Manchester *History Press*

Turing's involvement in the world's first computer and his life in Manchester.

Enigma

Dans le secret de Bletchley Park, où des centaines de mathématiciens anglais cherchent à paralyser le système nerveux du IIIe Reich, Tom Jéricho, le plus doué d'entre eux, est parvenu à décrypter "Enigma", le codé des U-Boote allemands. Pour lui, mission accomplie, la guerre est terminée. Un

tout autre combat l'attend maintenant retrouver Claire Romilly, la femme de sa vie, inexplicablement disparue au milieu d'un nid d'espions. Mais, en ce printemps 1943, le code d'"Enigma" change soudain de fréquence et de chiffre. Privés d'informations, les convois maritimes alliés se dirigent tout droit vers les sous-marins de l'amiral Dönitz.

The Codebreakers

A Beautiful Mind *Simon and Schuster*

The bestselling, prize-winning biography of a mathematical genius who suffered from schizophrenia, miraculously recovered, and then won a Nobel Prize.

Richter's Scale *Princeton University Press*

By developing the scale that bears his name, Charles Richter not only invented the concept of magnitude as a measure of earthquake size, he turned himself into nothing less than a household word. He remains the only seismologist whose name anyone outside of narrow scientific circles would likely recognize. Yet few understand the Richter scale itself, and even fewer have ever understood the man. Drawing on the wealth of papers Richter left behind, as well as dozens of interviews with his family and colleagues, Susan Hough takes the reader deep into Richter's complex life story, setting it in the context of his family and interpersonal attachments, his academic career, and the history of seismology. Among his colleagues Richter was known as intensely private, passionately interested in earthquakes, and iconoclastic. He was an avid nudist, seismologists tell each other with a grin; he dabbled in poetry. He was a publicity hound, some suggest, and more famous than he deserved to be. But even his closest associates were unaware that he struggled to reconcile an intense and abiding need for artistic expression with his scientific interests, or that his apparently strained relationship with his wife was more unconventional but also stronger than they knew. Moreover, they never realized that his well-known foibles might even have been the consequence of a profound neurological disorder. In this biography, Susan Hough artfully interweaves the stories of Richter's life with the history of earthquake exploration and seismology. In doing so, she illuminates the world of earth science for the lay reader, much as Sylvia Nasar brought

the world of mathematics alive in *A Beautiful Mind*.

The Man who Loved Only Numbers *Fourth Estate (GB)*

The biography of a mathematical genius. Paul Erdos was the most prolific pure mathematician in history and, arguably, the strangest too. 'A mathematical genius of the first order, Paul Erdos was totally obsessed with his subject -- he thought and wrote mathematics for nineteen hours a day until he died. He travelled constantly, living out of a plastic bag and had no interest in food, sex, companionship, art -- all that is usually indispensable to a human life. Paul Hoffman, in this marvellous biography, gives us a vivid and strangely moving portrait of this singular creature, one that brings out not only Erdos's genius and his oddness, but his warmth and sense of fun, the joyfulness of his strange life.' Oliver Sacks For six decades Erdos had no job, no hobbies, no wife, no home; he never learnt to cook, do laundry, drive a car and died a virgin. Instead he travelled the world with his mother in tow, arriving at the doorstep of esteemed mathematicians declaring 'My brain is open'. He travelled until his death at 83, racing across four continents to prove as many theorems as possible, fuelled by a diet of espresso and amphetamines. With more than 1,500 papers written or co-written,

Turing

The Great Philosophers: Turing *Weidenfeld & Nicolson*

Alan Turing's 1936 paper *On Computable Numbers*, introducing the Turing machine, was a landmark of twentieth-century thought. It settled a deep problem in the foundations of mathematics, and provided the principle of the post-war electronic computer. It also supplied a new approach to the philosophy of the mind. Influenced by his crucial codebreaking work in the Second World War, and by practical pioneering of the first electronic computers, Turing argued that all the operations of the mind could be performed by computers. His thesis, made famous by the wit and drama of the Turing Test, is the cornerstone of modern Artificial Intelligence. Here Andrew Hodges gives a fresh and critical analysis of Turing's developing thought, relating it to his extraordinary life, and also to the more recent ideas of Roger Penrose.

The imitation game. L'enigma di Alan Turing