1. Record Nr.               UNIORUON00142512
   Autore                   CAGIGAS, Isidro : de las
   Titolo                   Andalucia musulmana : aportaciones a la delimitacion de la frontera del Andalus / Isidro De Las Cagigas
   Pubbl/distr/stampa       Madrid, : Instituto de Estudios Africanos, 1950
   Descrizione fisica       92 p. ; 25 cm
   Classificazione          ARA XIV

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2. Record Nr.               UNINA9910151566403321
   Autore                   Galperin Anatoly
   Titolo                   Iterative methods without inversion / / Anatoly Galperin
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                            ©2017
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   Edizione                 [1st ed.]
   Descrizione fisica       1 online resource (241 pages) : illustrations
   Collana                  Monographs and Research Notes in Mathematics

   Disciplina               518/.26
   Soggetti                 Iterative methods (Mathematics)
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                            Banach spaces
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   Nota di bibliografia     Includes bibliographical references and index.
   Nota di contenuto        1. Tools of the trade -- 2. Ulm's method -- 3. Ulm's method without derivatives -- 4. Broyden's method -- 5. Optimal secant updates of low rank -- 6. Optimal secant-type methods -- 7. Majorant generators and

their convergence domains.

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**Sommario/riassunto**

Iterative Methods without Inversion presents the iterative methods for solving operator equations $f(x) = 0$ in Banach and/or Hilbert spaces. It covers methods that do not require inversions of f (or solving linearized subproblems). The typical representatives of the class of methods discussed are Ulm's and Broyden's methods. Convergence analyses of the methods considered are based on Kantorovich's majorization principle which avoids unnecessary simplifying assumptions like differentiability of the operator or solvability of the equation. These analyses are carried out under a more general assumption about degree of continuity of the operator than traditional Lipschitz continuity: regular continuity. Key Features  The methods discussed are analyzed under the assumption of regular continuity of divided difference operator, which is more general and more flexible than the traditional Lipschitz continuity. An attention is given to criterions for comparison of merits of various methods and to the related concept of optimality of a method of certain class. Many publications on methods for solving nonlinear operator equations discuss methods that involve inversion of linearization of the operator, which task is highly problematic in infinite dimensions. Accessible for anyone with minimal exposure to nonlinear functional analysis.