

## **Analysis of electromagnetic force ripple in a bearingless synchronous reluctance motor**

Mukherjee, Victor; Rasilo, Paavo; Martin, Floran; **Belahcen, Anouar** IEEE transactions on magnetics 2021 / art. 9277612, 8 p. : ill  
<https://doi.org/10.1109/TMAG.2020.3041703> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Analytical solution of the magnetic field and EMF calculation in ironless BLDC motor**

Liu, Xiangdong; Hu, Hengzai; Zhao, Jing; **Belahcen, Anouar**; Tang, Liang; Yang, Lei IEEE transactions on magnetics 2016 / art. 8100510, [10] p. : ill <https://doi.org/10.1109/TMAG.2015.2481862>

## **Anisotropic and strain-dependent model of magnetostriction in electrical steel sheets**

**Belahcen, Anouar**; Singh, Deepak; Rasilo, Paavo; Martin, Floran; Ghalamestani, Setareh Gorji; Vandevelde, Lieven IEEE transactions on magnetics 2015 / p. 200-204 : ill <http://dx.doi.org/10.1109/TMAG.2014.2361681>

## **Armature reaction field and inductance calculation of ironless BLDC motor**

Liu, Xiangdong; Hu, Hengzai; Zhao, Jing; **Belahcen, Anouar**; Tang, Liang IEEE transactions on magnetics 2016 / art. 8200214, [14] p. : ill <https://doi.org/10.1109/TMAG.2015.2489605>

## **Comparison of model order reduction methods for a switched reluctance machine characterization**

Boumesbah, Allaa Eddine; Martin, Floran; Krebs, Guillaume; **Belahcen, Anouar**; Marchand, Claude IEEE transactions on magnetics 2021 / art. 9355193, 7 p. : ill <https://doi.org/10.1109/TMAG.2021.3059969> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Computation of hysteresis torque and losses in a bearingless synchronous reluctance machine**

**Belahcen, Anouar**; Mukherjee, Victor; Martin, Floran; Rasilo, Paavo IEEE transactions on magnetics 2018 / art. 7300804, 4 p. : ill <https://doi.org/10.1109/TMAG.2017.2765080> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Computation of magnetic forces using degenerated air-gap element**

Sathyam, Sabin; **Belahcen, Anouar**; Kataja, Juhani; Henrotte, Francois; Benabou, Abdelkader; Le Menach, Yvonnick IEEE transactions on magnetics 2017 / 7401304, 4 p. : ill <https://doi.org/10.1109/TMAG.2017.2656239>

## **Constrained algorithm for the selection of uneven snapshots in model order reduction of a bearingless motor**

Mukherjee, Victor; Far, Mehrnaz Farzam; Martin, Floran; **Belahcen, Anouar** IEEE transactions on magnetics 2017 / art. 7205304, 4 p. : ill <http://dx.doi.org/10.1109/TMAG.2017.2664505>

## **Coupled magneto-mechanical analysis of iron sheets under biaxial stress**

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## **Domain decomposition approach for efficient time-domain finite-element computation of winding losses in electrical machines**

Lehikoinen, Antti; Ikäheimo, Jouni; Arkkio, Antero; **Belahcen, Anouar** IEEE transactions on magnetics 2017 / art. 7400609, 9 p. : ill <https://doi.org/10.1109/TMAG.2017.2681045>

## **Effect of Magnetic Forces and Magnetostriction on the Stator Vibrations of a Bearingless Synchronous Reluctance Motor**

Mukherjee, Victor; Rasilo, Paavo; Martin, Floran; **Belahcen, Anouar** IEEE transactions on magnetics 2019 / 4 p. : ill <https://doi.org/10.1109/TMAG.2019.2894739> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **Effect of mechanical stress on excess loss of electrical steel sheets**

Singh, Deepak; Rasilo, Paavo; Martin, Floran; **Belahcen, Anouar**; Arkkio, Antero IEEE transactions on magnetics 2015 / [4] p. : ill <http://dx.doi.org/10.1109/TMAG.2015.2449779>

## **Effect of punching the electrical sheets on optimal design of a permanent magnet synchronous motor**

Martin, Floran; Aydin, Ugur; Sundaria, Ravi; Rasilo, Paavo; **Belahcen, Anouar**; Arkkio, Antero IEEE Transactions on Magnetics 2018 / art. 8102004 <https://doi.org/10.1109/TMAG.2017.2768399> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

## **EMSA 2016 publications chairs preface**

Manzin, Alessandra; Asenjo, Agustina; **Belahcen, Anouar**; Butta, Mattia IEEE transactions on magnetics 2017 / 0200603, p. 1-3 : fot <https://doi.org/10.1109/TMAG.2017.2670446>

## **Equivalent strain and stress models for the effect of mechanical loading on the permeability of ferromagnetic materials**

Rasilo, Paavo; Aydin, Ugur; Martin, Floran; **Belahcen, Anouar**; Kouhia, Reijo; Daniel, Laurent IEEE transactions on magnetics 2019 / art. 2002104, <https://doi.org/10.1109/TMAG.2018.2890407>

## **Generation of unmeasured loading levels data for condition monitoring of induction machine using machine learning**

Billah, Md Masum; Saberi, Alireza Nemat; Hemeida, Ahmed; Martin, Floran; Kudelina, Karolina; **Asad, Bilal**; Naseer, Muhammad Usman; Mukherjee, Victor; Belahcen, Anouar IEEE transactions on magnetics 2023 <https://doi.org/10.1109/TMAG.2023.3312267>

## **Homogenization of multiscale eddy current problem by localized orthogonal decomposition method**

Ren, Xiaotao; Hannukainen, Antti; **Belahcen, Anouar** IEEE transactions on magnetics 2019 / art. 7500204, 4 p

<https://doi.org/10.1109/TMAG.2019.2917400>

## **Homogenization technique for axially laminated rotors of synchronous reluctance machines**

Martin, Floran; **Belahcen, Anouar**; Lehikoinen, Antti; Rasilo, Paavo IEEE transactions on magnetics 2015 / [6] p. : ill

<http://dx.doi.org/10.1109/TMAG.2015.2463262>

## **Identification of synchronous machine magnetization characteristics from calorimetric core-loss and no-load curve measurements**

Rasilo, Paavo; Abdallah, Ahmed Abou-Elyazied; **Belahcen, Anouar**; Arkkio, Antero; Dupré, Luc IEEE transactions on magnetics 2015 / [4] p. : ill <http://dx.doi.org/10.1109/TMAG.2014.2354055>

## **Importance of iron-loss modeling in simulation of wound-field synchronous machines**

Rasilo, Paavo; **Belahcen, Anouar**; Arkkio, Antero IEEE transactions on magnetics 2012 / p. 2495-2504 : ill

## **Iron losses, magnetoelasticity and magnetostriction in ferromagnetic steel laminations**

Rasilo, Paavo; Singh, Deepak; **Belahcen, Anouar**; Arkkio, Antero IEEE transactions on magnetics 2013 / p. 2041-2044 : ill

## **Magnetic equivalent circuit and Lagrange interpolation function modeling of induction machines under broken bar faults**

Hemeida, Ahmed; Billah, Md Masum; **Kudelina, Karolina**; **Asad, Bilal**; Naseer, Muhammad Usman; Guo, Baocheng; Martin, Floran; Rasilo, Paavo; Belahcen, Anouar IEEE transactions on magnetics 2023 <https://doi.org/10.1109/TMAG.2023.3306207>

## **Mixed-order finite-element modeling of magnetic material degradation due to cutting**

Sundaria, Ravi; Lehikoinen, Antti; Hannukainen, Antti; Arkkio, Antero; **Belahcen, Anouar** IEEE transactions on magnetics 2018 / art. 7402008, 8 p. : ill <http://dx.doi.org/10.1109/TMAG.2018.2811385>

## **Model for stress-dependent hysteresis in electrical steel sheets including orthotropic anisotropy**

Rasilo, Paavo; Steentjes, S.; **Belahcen, Anouar**; Kouhia, Reijo; Hameyer, Kay IEEE transactions on magnetics 2017 / art. 2001004, 4 p. : ill <http://dx.doi.org/10.1109/TMAG.2017.2659784>

## **Model of magnetic anisotropy of non-oriented steel sheets for finite-element method**

Martin, Floran; Singh, Deepak; Rasilo, Paavo; **Belahcen, Anouar**; Arkkio, Antero IEEE transactions on magnetics 2016 / [4] p. : ill <http://dx.doi.org/10.1109/TMAG.2015.2488100>

## **Modeling of hysteresis losses in ferromagnetic laminations under mechanical stress**

Rasilo, Paavo; Singh, Deepak; Aydin, U.; Martin, Floran; Kouhia, Reijo; **Belahcen, Anouar**; Arkkio, Antero IEEE transactions on magnetics 2016 / art. 7300204, [4] p. : ill <http://dx.doi.org/10.1109/TMAG.2015.2468599>

## **Modeling the Effect of Multiaxial Stress on Magnetic Hysteresis of Electrical Steel Sheets : A Comparison**

Aydin, Ugur; Rasilo, Paavo; Martin, Floran; Singh, Deepak; **Belahcen, Anouar** IEEE transactions on magnetics 2017 / art. 2000904, 4 p. : ill <http://dx.doi.org/10.1109/TMAG.2017.2658676>

## **Modified winding function analysis of synchronous reluctance motor for design iteration purposes**

Naseer, Muhammad Usman; Kallaste, Ants; **Asad, Bilal**; Vaimann, Toomas; Rassõlkin, Anton IEEE transactions on magnetics 2022 / art. 7500704 <https://doi.org/10.1109/TMAG.2022.3164189> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## **Orthogonal interpolation method for order reduction of a synchronous machine model**

Far, Mehrnaz Farzam; Martin, Floran; **Belahcen, Anouar**; Montier, Laurent; Henneron, Thomas IEEE transactions on magnetics 2018 / 8100506, p. 1-6 : ill <https://doi.org/10.1109/TMAG.2017.2768328> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

## **Rotational single sheet tester for multiaxial magneto-mechanical effects in steel sheets**

Aydin, Ugur; Martin, Floran; Rasilo, Paavo; **Belahcen, Anouar** IEEE transactions on magnetics 2019 / art. 2001810, 10 p. : ill <https://doi.org/10.1109/TMAG.2018.2889238>

## **Segregation of iron losses from rotational field measurements and application to electrical machine**

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## **Uncertainty quantification of input parameters in a 2D finite-element model for broken rotor bar in an induction machine**

Billah, Md Masum; Martin, Floran; **Belahcen, Anouar**; Balasubramanian, Aswin; **Vaimann, Toomas**; Sobra, Jan IEEE transactions on magnetics 2022 / art. 8205804 <https://doi.org/10.1109/TMAG.2022.3173663> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

