

Analysis of electromagnetic force ripple in a bearingless synchronous reluctance motor

Mukherjee, Victor; Rasilo, Paavo; Martin, Florian; **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 model for magnetic anisotropy of non-oriented steel sheets

Martin, Florian; Singh, Deepak; **Belahcen, Anouar**; Rasilo, Paavo; Haavisto, Ari; Arkkio, Antero COMPEL : the international journal for computation and mathematics in electrical and electronic engineering 2015 / p. 1475-1488 : ill <http://dx.doi.org/10.1108/COMPEL-02-2015-0076>

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

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

Combined deterministic algorithm and metaheuristic technique for fast and accurate resolution of optimization problems

Martin, Florian; Aydin, Ugur; Sundaria, Ravi; Rasilo, Paavo; **Belahcen, Anouar** 21st International Conference on the Computation of Electromagnetic Fields (Compumag 2017) : Daejeon, South Korea, 18-22 June 2017 / p. 3-4 : ill <http://www.compumag.org/CMAG2017/OA1-2/131.pdf>

Combined FE and particle swarm algorithm for optimization of high speed PM synchronous machine

Belahcen, Anouar; Martin, Florian; El Hadi Zaim, Mohammed; Dlala, Emad; Kolondzovski, Zlatko COMPEL : the international journal for computation and mathematics in electrical and electronic engineering 2015 / p. 475-484 : ill <http://dx.doi.org/10.1108/COMPEL-07-2014-0168>

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

Boumesbah, Allaa Eddine; Martin, Florian; 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, Florian; Rasilo, Paavo 21st International Conference on the Computation of Electromagnetic Fields (Compumag 2017) : Daejeon, South Korea, 18-22 June 2017 / p. 214-215 : ill <http://www.compumag.org/CMAG2017/PA-A5-10/129.pdf>

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

Belahcen, Anouar; Mukherjee, Victor; Martin, Florian; 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](#)

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

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

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

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

Effect of mechanical stress on magnetization and magnetostriction strain behavior of non-oriented Si-Fe steels at different directions and under pseudo-DC conditions

Lahyaoui, Otmane; Lanfranchi, Vincent; Buiron, Nicolas; Martin, Florian; Aydin, Ugur; **Belahcen, Anouar** International journal of applied electromagnetics and mechanics 2019 / p. 299-312 <https://doi.org/10.3233/JAE-180106>

Effect of multi-axial stress on iron losses of electrical steel sheets

Aydin, Ugur; Rasilo, Paavo; Martin, Florian; **Belahcen, Anouar** Journal of magnetism and magnetic materials 2019 / p. 19-27 : ill <https://doi.org/10.1016/j.jmmm.2018.08.003>

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

Martin, Florian; Aydin, Ugur; Sundaria, Ravi; Rasilo, Paavo; **Belahcen, Anouar**; Arkkio, Antero IEEE Transactions on Magnetism 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](#)

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

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

Flexible identification procedure for thermodynamic constitutive models for magnetostrictive materials

Rasilo, Paavo; Singh, Deepak; Jeronen, Juha; Aydin, Ugur; Martin, Florian; **Belahcen, Anouar**; Daniel, Laurent; Kouhia, Reijo
Proceedings of the Royal Society. A, Mathematical, physical & engineering sciences 2019 / 21 p <https://doi.org/10.1098/rspa.2018.0280>

Flux-weakening control for IPMSM employing model order reduction

Far, Mehrnaz Farzam; Mustafa, Bilal; Martin, Florian; Rasilo, Paavo; **Belahcen, Anouar** 2018 XIII International Conference on Electrical Machines (ICEM 2018) : Alexandroupoli, Greece, 3-6 September 2018 2018 / p. 1510–1516 : ill
<http://doi.org/10.1109/ICELMACH.2018.8506693>

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

Billah, Md Masum; Saberi, Alireza Nemat; Hemeida, Ahmed; Martin, Florian; **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 technique for axially laminated rotors of synchronous reluctance machines

Martin, Florian; **Belahcen, Anouar**; Lehtikoinen, Antti; Rasilo, Paavo IEEE transactions on magnetics 2015 / [6] p. : ill
<http://dx.doi.org/10.1109/TMAG.2015.2463262>

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, Florian; Rasilo, Paavo; Belahcen, Anouar IEEE transactions on magnetics 2023 <https://doi.org/10.1109/TMAG.2023.3306207>

Magneto-mechanical modeling of electrical steel sheets

Aydin, Ugur; Rasilo, Paavo; Martin, Florian; Singh, Deepak; Daniel, Laurent; **Belahcen, Anouar**; Rekik, Mahmoud; Hubert, Olivier; Kouhia, Reijo; Arkkio, Antero Journal of magnetism and magnetic materials 2017 / p. 82-90 : ill
<https://doi.org/10.1016/j.jmmm.2017.05.008>

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

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

Modelling anisotropy in non-oriented electrical steel sheet using vector Jiles-Atherton model

Upadhaya, Brijesh; Martin, Florian; Rasilo, Paavo; Handgruber, Paul; **Belahcen, Anouar**; Arkkio, Antero COMPEL : The international journal for computation and mathematics in electrical and electronic engineering 2017 / p. 764-773 : ill
<http://dx.doi.org/10.1108/COMPEL-09-2016-0399>

Orthogonal interpolation method for order reduction of a synchronous machine model

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

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

Billah, Md Masum; Martin, Florian; **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](#)