

### **Application of Haar wavelet based methods for solving wave propagation problems**

**Ratas, Mart;** Jena, S.K.; Chakraverty, S. AIP conference proceedings 2020 <https://doi.org/10.1063/5.0026696> [Conference proceeding at Scopus](#) [Article at Scopus](#)

### **Application of Haar wavelet method for solving nonlinear evolution equations**

**Ratas, Mart** International Conference of Numerical Analysis and Applied Mathematics, ICNAAM 2018 : 13-18 September 2018, Rhodes, Greece 2019 / art. 330004, p. 1–4 <https://doi.org/10.1063/1.5114342> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Application of higher order Haar wavelet method for solving nonlinear evolution equations**

**Ratas, Mart; Salupere, Andrus** Mathematical modelling and analysis 2020 / p. 271-288 <https://doi.org/10.3846/mma.2020.11112> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Application of HoHWM in the stability analysis of nonlocal Euler-Bernoulli beam**

Jena, Subrat Kumar; Chakraverty, Snehashish; **Ratas, Mart; Kirs, Maarjuss** International Conference of Numerical Analysis and Applied Mathematics ICNAAM 2019 : 23–28 September 2019 Rhodes, Greece 2020 / art. 230003 <https://doi.org/10.1063/5.0026439> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Application of the Adaptive Higher Order Haar Wavelet based methods for solving the sine-Gordon equation**

**Ratas, Mart** AIP conference proceedings 2022 / art. 380006 <https://doi.org/10.1063/5.0081491> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

### **Design principle of a biomimetic underwater robot U-CAT**

**Salumäe, Taavi; Raag, Rasmus; Rebane, Jaan; Ernits, Andres; Toming, Gert; Ratas, Mart; Kruusmaa, Maarja** OCEANS'14 MTS/IEEE St. John's : St. Johns, Newfoundland, Canada, 14-19 September 2014 2014 / [5] p. : ill

### **Higher-order Haar wavelet method for vibration analysis of nanobeams**

**Majak, Jüri;** Shvartsman, Boris; **Ratas, Mart;** Bassir, David; **Pohlak, Meelis; Karjust, Kristo; Eerme, Martin** Materials today communications 2020 / art. 101290, 6 p. : tab <https://doi.org/10.1016/j.mtcomm.2020.101290> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Numerical analysis of nonlinear wave propagation = Mittelineaarse lainelevi numbriline analüüs**

**Ratas, Mart** 2020 [https://www.eester.ee/record=b5391019\\*est](https://www.eester.ee/record=b5391019*est) <https://digikogu.taltech.ee/et/Item/96b84b2f-8dc3-4c25-8c58-a5dde59d14ea>

### **Numerical solution of PDE-s using haar wavelet based methods**

**Ratas, Mart** 24th International Conference on Mathematical Modelling and Analysis : May 28-31, 2019, Tallinn, Estonia : abstracts 2019 / p. 62

### **On the application of 2D discrete spectral analysis in case of the KP equation**

**Salupere, Andrus; Ratas, Mart** Mechanics research communications 2018 / p. 141-147 : ill <https://doi.org/10.1016/j.mechrescom.2017.08.010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **PHA-based feedback control of a biomimetic AUV for diver following : design, simulations and real-time experiments**

**Ratas, Mart;** Chemori, Ahmed; **Kruusmaa, Maarja** European Control Conference (ECC) 2022 / p. 503-509 <https://doi.org/10.23919/ECC55457.2022.9838054>

### **Solving nonlinear boundary value problems using the higher order Haar wavelet Method**

**Ratas, Mart; Majak, Jüri; Salupere, Andrus** Mathematics 2021 / art. 2809 <https://doi.org/10.3390/math9212809> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Solving nonlinear PDEs using the higher order Haar wavelet method on nonuniform and adaptive grids**

**Ratas, Mart; Salupere, Andrus; Majak, Jüri** Mathematical modelling and analysis 2021 / p. 147–169 <https://doi.org/10.3846/mma.2021.12920> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **The importance of superspreaders on the spread of the global COVID-19 pandemic**

**Kalda, Jaan; Ratas, Mart; Kalda, Taavet; Ramazanli, Azer; Herrmann, Heiko; Belikov, Juri** 2021 <https://doi.org/10.21203/rs.3.rs-1167477/v1>