

Resource Summary Report

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DelPhi

RRID:SCR_008669

Type: Tool

Proper Citation

DelPhi (RRID:SCR_008669)

Resource Information

URL: http://wiki.c2b2.columbia.edu/honiglab_public/index.php/Software:DelPhi

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Description: DelPhi provides numerical solutions to the Poisson-Boltzmann equation (both linear and nonlinear form) for molecules of arbitrary shape and charge distribution. The current version is fast, accurate, and can handle extremely high lattice dimensions. It also includes flexible features for assigning different dielectric constants to different regions of space and treating systems containing mixed salt solutions. DelPhi takes as input a coordinate file format of a molecule or equivalent data for geometrical objects and/or charge distributions and calculates the electrostatic potential in and around the system, using a finite difference solution to the Poisson-Boltzmann equation. DelPhi is a versatile electrostatics simulation program that can be used to investigate electrostatic fields in a variety of molecular systems. Features of DelPhi include solutions to mixtures of salts of different valence; solutions to different dielectric constants to different regions of space; and estimation of the best relaxation parameter at run time.

Resource Type: software resource, software application, simulation software

Keywords: Poisson-Boltzmann equation, electrostatics, simulation software, mixed salt solution

Funding: NSF DBI-9904841

Resource Name: DelPhi

Resource ID: SCR_008669

Alternate IDs: nif-0000-33392

Record Creation Time: 20220129T080248+0000

Record Last Update: 20260801T042641+0000

Ratings and Alerts

No rating or validation information has been found for DelPhi.

No alerts have been found for DelPhi.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1420 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Min N, et al. (2025) Prediction of vesicouterine adhesions by transvaginal sonographic sliding sign technique: validation study. *Ultrasound in obstetrics & gynecology : the official journal of the International Society of Ultrasound in Obstetrics and Gynecology*, 65(1), 114.

Cohen G, et al. (2025) The combined impact of meconium stained amniotic fluid and small for gestational age on delivery outcomes. *Archives of gynecology and obstetrics*, 312(1), 219.

Rabinovici GD, et al. (2025) Updated appropriate use criteria for amyloid and tau PET: A report from the Alzheimer's Association and Society for Nuclear Medicine and Molecular Imaging Workgroup. *Alzheimer's & dementia : the journal of the Alzheimer's Association*, 21(1), e14338.

Hawke LD, et al. (2025) Best Practices Guidelines for the Engagement of People With Lived Experience and Family Members in Mental Health and Substance Use Health Research: A Modified Delphi Consensus Study. *Health expectations : an international journal of public participation in health care and health policy*, 28(1), e70152.

Salinger MR, et al. (2025) Defining and Validating Criteria to Identify Populations Who May Benefit From Home-Based Primary Care. *Medical care*, 63(1), 27.

Flügel V, et al. (2025) Development and validation of a questionnaire on parental health literacy in the context of promoting healthy lifestyles during childhood: a study protocol. *BMJ open*, 15(2), e088037.

Vanneste T, et al. (2025) 9. Chronic knee pain. *Pain practice : the official journal of World Institute of Pain*, 25(1), e13408.

van Schuppen J, et al. (2025) Prerequisites for Clinical Implementation of Whole-Heart 4D-Flow MRI: A Delphi Analysis. *Journal of magnetic resonance imaging : JMRI*, 61(4), 1618.

- Buijs GS, et al. (2025) Visible fluid motion on manipulation as the new threshold for intraoperatively determined knee arthroplasty component loosening: A Delphi study. *Knee surgery, sports traumatology, arthroscopy : official journal of the ESSKA*, 33(1), 343.
- Reilly JJ, et al. (2025) Improving National and International Surveillance of Movement Behaviours in Childhood and Adolescence: An International Modified Delphi Study. *Sports medicine (Auckland, N.Z.)*, 55(1), 203.
- Edwards C, et al. (2025) Developing guidelines on EFT for same-sex/gender relationships: Recommendations from a Delphi study. *Family process*, 64(1), e13079.
- Saibene AM, et al. (2025) Comprehensive Management of Cocaine-Induced Midline Destructive Lesions: A Young-IfOS Consensus. *Journal of personalized medicine*, 15(6).
- Gibson J, et al. (2025) Using an e-Delphi consensus technique to develop the Stressful Adverse Veterinary Events Support (SAVES) Framework. *PloS one*, 20(6), e0326222.
- Leoni MLG, et al. (2025) Endoscopic Epidurolysis for the Management of Chronic Spinal Pain: A Delphi-Based Italian Experts Consensus. *Pain and therapy*, 14(1), 339.
- Bell E, et al. (2025) Physiotherapy of the Trunk Related to Sitting Function After Stroke: A Delphi Study. *Clinical rehabilitation*, 39(4), 524.
- Iken AR, et al. (2025) Prioritizing orthopaedic evidence uncertainties : expert consensus based on a modified DELPHI study and a focus group. *Bone & joint open*, 6(2), 206.
- Marenga F, et al. (2025) Protocol for the development of a core outcome set for respectful maternal and newborn care in a low-middle income setting. *PloS one*, 20(4), e0319419.
- Unni EJ, et al. (2025) Expert consensus on implementing patient-reported outcomes in telehealth: findings from an international Delphi study. *Journal of patient-reported outcomes*, 9(1), 40.
- Al Shaker H, et al. (2025) Development of a core outcome set for clinical trials targeting interventions aiming to improve adherence to appropriate polypharmacy in older people- an international consensus study. *Age and ageing*, 54(4).
- Dalgaard VL, et al. (2025) Can an organizationally anchored, multilevel intervention improve perceived stress and psychosocial factors in the workplace? A pre-post study assessing effectiveness and implementation. *BMC public health*, 25(1), 384.