

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: 20250513T061014+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 1210 mentions in open access literature.

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

Sierla R, et al. (2025) Attaining consensus on a core dataset for upper limb lymphoedema using the Delphi method: A foundational step in creating a clinical support system. Health information management : journal of the Health Information Management Association of Australia, 54(1), 64.

Mori M, et al. (2025) Definition and recommendations of advance care planning: A Delphi study in five Asian sectors. Palliative medicine, 39(1), 99.

Blotenberg I, et al. (2025) Modifiable risk factors and symptom progression in dementia over up to 8 years-Results of the Delphi-MV trial. Alzheimer's & dementia (Amsterdam, Netherlands), 17(1), e70050.

Alderman JE, et al. (2025) Tackling algorithmic bias and promoting transparency in health datasets: the STANDING Together consensus recommendations. The Lancet. Digital health, 7(1), e64.

Schifano J, et al. (2025) How Delphi studies in the health sciences find consensus: a scoping review. Systematic reviews, 14(1), 14.

Augusto FR, et al. (2025) Addressing vaccine hesitancy in the training of healthcare professionals: Insights from the VAX-TRUST project. Public health in practice (Oxford, England), 9, 100569.

Nejati V, et al. (2025) Development of a checklist for cognitive assessment requirements (CARE) based on a Delphi consensus study. Scientific reports, 15(1), 3146.

Mousavi Baigi SF, et al. (2025) Design and Development of a Web-Based Registry for Outpatient Rehabilitation: A Delphi Multi-Disciplinary, Expert Consensus Study. *Health science reports*, 8(1), e70237.

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

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.

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.

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.

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.

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.

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.

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.

Heilijgers F, et al. (2025) Nutcracker syndrome (a Delphi consensus). *Journal of vascular surgery. Venous and lymphatic disorders*, 13(1), 101970.

Chipps BE, et al. (2025) On-treatment clinical remission of severe asthma with real-world longer-term biologic use. *The journal of allergy and clinical immunology. Global*, 4(1), 100365.

Zhang Y, et al. (2025) Association between metabolic dysfunction associated steatotic liver disease and gallstones in the US population using propensity score matching. *Scientific reports*, 15(1), 910.