

Resource Summary Report

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WINGS

RRID:SCR_013997

Type: Tool

Proper Citation

WINGS (RRID:SCR_013997)

Resource Information

URL: <http://wings-workflows.org>

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Description: A software application which assists scientists with designing computational experiments. WINGS is a semantic workflow system which incorporates semantic constraints about datasets and workflow components into its workflow representations. The workflow system has an open modular design and can be easily integrated with other existing workflow systems and execution frameworks to extend them with semantic reasoning capabilities. WINGS also allows users to express high-level descriptions of their analysis goals, and assists them by automatically and systematically generating possible workflows that are consistent with that request. In cases where privacy or off-line use are important, WINGS can submit workflows in a scripted format for execution in the local host. It uses Pegasus or OODT as the execution engine for large-scale distributed workflow execution.

Synonyms: Workflow Instance Generation and Specialization

Resource Type: data management software, systems interoperability software, software resource, software application

Keywords: semantic workflow system, software application, computational experiment, computational experiment design, data management software

Funding: NSF CCF-0725332;
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Air Force Research Laboratory FA8750-06-C-0210

Availability: Free, Public

Resource Name: WINGS

Resource ID: SCR_013997

License: License varies for each product

Record Creation Time: 20220129T080318+0000

Record Last Update: 20260804T043526+0000

Ratings and Alerts

No rating or validation information has been found for WINGS.

No alerts have been found for WINGS.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 27 mentions in open access literature.

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

Zhang K, et al. (2025) A novel approach for agricultural carbon emission reduction by integrating fermatean neutrosophic set with WINGS and AHP-EWM. Scientific reports, 15(1), 391.

Choudhary TS, et al. (2025) Benefit-cost analysis of an integrated package of interventions during preconception, pregnancy and early childhood in India. BMJ global health, 10(4).

Gadapani Pathak B, et al. (2025) Quality of life and its determinants in women with delayed conception in low-mid socioeconomic neighbourhoods of Northern India: a cross-sectional study. BMJ public health, 3(1), e001740.

Pathak BG, et al. (2025) Prevalence and correlates of symptoms of depression, anxiety, and psychological distress among women of reproductive age with delayed conception in urban and peri-urban low to mid-socioeconomic neighborhoods of Delhi, India: A cross-sectional study. PloS one, 20(2), e0315347.

Adhikary P, et al. (2024) Intersectional analysis of the experiences of women who fail to conceive in low and middle income neighbourhoods of Delhi, India: Findings from a qualitative study. PloS one, 19(7), e0304029.

Chen JK, et al. (2024) A duo-theme cloud model DEMATEL approach for exploring the cause factors of green supply chain management. PloS one, 19(3), e0294684.

Cai XY, et al. (2024) Atoh1 mediated disturbance of neuronal maturation by perinatal hypoxia induces cognitive deficits. *Communications biology*, 7(1), 1121.

Khan N, et al. (2024) Pilot study of a real-time early agitation capture technology (REACT) for children with intellectual and developmental disabilities. *Digital health*, 10, 20552076241287884.

Zhang K, et al. (2024) Promoting agricultural sustainable development by a novel integrated pythagorean neutrosophic and WINGS-BWM model. *Scientific reports*, 14(1), 29043.

Wang M, et al. (2023) An integrated rough-fuzzy WINGS-ISM method with an application in ASSCM. *Expert systems with applications*, 212, 118843.

Dhabhai N, et al. (2023) Burden, risk factors and outcomes associated with adequately treated hypothyroidism in a population-based cohort of pregnant women from North India. *PloS one*, 18(9), e0282381.

Tian Y, et al. (2023) Bipolar neutrosophic WINGS for green technology innovation. *Scientific reports*, 13(1), 19159.

Karantha SC, et al. (2023) Association of fetal ultrasound anthropometric parameters with neurodevelopmental outcomes at 24 months of age. *PloS one*, 18(12), e0296215.

Bahl S, et al. (2022) Burden, risk factors and outcomes associated with gestational diabetes in a population-based cohort of pregnant women from North India. *BMC pregnancy and childbirth*, 22(1), 32.

Dhabhai N, et al. (2022) Prevalence of reproductive tract infections including sexually transmitted infections among married women in urban and peri-urban mid to low socioeconomic neighbourhoods of Delhi, North India: an observational study protocol. *BMJ open*, 12(3), e059583.

Zheng ZK, et al. (2021) A Predictive Multimodal Framework to Alert Caregivers of Problem Behaviors for Children with ASD (PreMAC). *Sensors (Basel, Switzerland)*, 21(2).

Scott S, et al. (2020) Multidimensional predictors of common mental disorders among Indian mothers of 6- to 24-month-old children living in disadvantaged rural villages with women's self-help groups: A cross-sectional analysis. *PloS one*, 15(6), e0233418.

McGuirl MR, et al. (2020) Detecting Shared Genetic Architecture Among Multiple Phenotypes by Hierarchical Clustering of Gene-Level Association Statistics. *Genetics*, 215(2), 511.

Ogbe E, et al. (2020) A systematic review of intimate partner violence interventions focused on improving social support and/ mental health outcomes of survivors. *PloS one*, 15(6), e0235177.

Wang D, et al. (2019) Population pharmacokinetics of tacrolimus in pediatric patients with systemic-onset juvenile idiopathic arthritis: Initial dosage recommendations. *Experimental and therapeutic medicine*, 18(6), 4653.