

# Abbreviations

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ABM	agent-based model
ABS	Australian Bureau of Statistics
AI	artificial intelligence
AIPP	Allegheny Institute for Public Policy
AMAD	Arithmetic mean of absolute differences as a measure of matrix distance
AMRD	arithmetic mean of relative differences as a measure of matrix distance
AOIE	action-oriented industrial ecology
ASFF	Australian Stocks and Flows Framework
BAU	business as usual
BEA	US Department of Commerce Bureau of Economic Analysis
CA	cellular automata
CAS	complex adaptive systems
CES	Centre for Environmental Strategy
CHI	the $\chi^2$ distribution of absolute differences as a measure of matrix distance
CIQ	cross-industry quotient assumption of intraregional trade
CORR	correlation coefficient as a measure of matrix distance
CRT	cathode ray tube
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CTC	Concurrent Technologies Corporation
DCORR	de-correlation coefficient (1-CORR)
DERA	Defence Evaluation and Research Agency
DSE	Victorian Department of Sustainability and Environment
DSIM	dissimilarity index (1-SIM)
DSM	demand-side management
EIA	US Department of Energy – Energy Information Administration
EIO-LCA	economic input–output life cycle assessment
EPA	US Environmental Protection Agency
GHG	greenhouse gas
GM	genetically modified

GMAD	relative geometric mean of absolute differences as a measure of matrix distance
GMDf	gravity model assumption on interregional trade using data from freight movements
GMDs	gravity model assumption on interregional trade using distance between state capitals
GRIT	Generation of Regional Input–output Tables – technique for the generation of regional input–output tables
GSO	gross state output
GSP	gross state product
GWP	global warming potential
IAPs	interested and affected parties
IE	industrial ecology
IGCC	integrated gasification combined cycle
I–O	input–output
ISA	Integrated Sustainability Analysis group at the University of Sydney
kWh	kilowatt-hour
LCA	life cycle assessment
LCIA	life cycle impact assessment
LGA	local government area
LHS	Latin hypercube sampling
LQ	location quotient assumption on intraregional trade
MCDA	multi-criteria decision analysis
MCS	Monte Carlo sampling
MFA	material flow analysis
MIR	maximum incremental reactivity
MRIO	multiregional input–output model
mt	metric ton
MTCDE	metric tons of carbon dioxide equivalent
NAQETR	National Air Quality and Emission Trends Report
NGCC	natural gas combined cycle
NH	null hypothesis assumption (zero interregional trade)
NO <sub>x</sub>	nitrogen oxides
O&M	operation and maintenance
OFP	ozone formation potential
PCSO	President’s Council for Sustainable Development
PEIP	planned eco-industrial park
pkm	passenger-kilometres
pre-RAS	preliminary estimate into RAS
PTR	passenger transportation revenue
R&D	research and development

RAS	bi-proportional matrix balancing technique
RCRA	Resource Conservation and Recovery Act
RDA	regional development agency
REIO-LCA	regional economic input–output analysis-based LCA
RIMS	regional input–output modeling system
RIOT	regional input–output model
RPC	regional purchase coefficient
RPM	revenue passenger miles
SDP	supply–demand pool assumption on intra-regional trade
SFA	substance flow analysis
SFF	stocks and flows frameworks
SIM	sequential inter-industry modeling
SIM	similarity index as a measure of matrix distance
SLQ	semi-logarithmic quotient assumption on intra-regional trade
SOHO	self-organizing hierarchical open
SOS	self-organizing symbiosis
SP	smog potential
tkm	metric ton-kilometers
TRACI	Tool for the Reduction and Assessment of Chemical and other Environmental Impacts
TRI	US Environmental Protection Agency Toxics Release Inventory
UNSW	University of New South Wales
US SEC	US Securities and Exchange Commission
VOCs	volatile organic compounds
VRSFF	Victorian Regional Stocks and Flows Framework
WDIF	weighted mean of absolute differences as a measure of matrix distance
$\lambda$ -systems	large-scale socio-technical systems