# ▼ 1  Investigating Hybrid Strategies for Systematic Literature Review

**Experiment 2**

This notebook displays:

1. Citation Matrix;
2. Matrix of Indication of Steps to find the selected articles;
3. Graph of Indication of Steps to find the selected articles;
4. Backward and Forward Matrix.

Note: Citation Graph --> CitationGraph.ipynb

`Selected Studies`

`Out[3]:`

| Title | Authors | Year | Metakey | Study |
|---|---|---|---|---|
| Using formal software development methodologies in a real-world student project: an experience report | Mitra, Sandeep and Bullinger, Thomas A | 2007 | mitra2007a | S1 |
| All-out organizational Scrum as an innovation value chain | Barton, Brent | 2009 | barton2009a | S2 |
| Better planning via tasking as a team | O'Connor, Christopher P | 2010 | oconnor2010b | S3 |
| Letters from the edge of an agile transition | O'Connor, Christopher P | 2010 | oconnor2010a | S4 |
| The impact of inadequate customer collaboration on self-organizing Agile teams | Hoda, Rashina and Noble, James and Marshall, Stuart | 2011 | hoda2011a | S5 |
| Scaling agile product ownership through team alignment and optimization: a story of epic proportions | Saddington, Peter | 2012 | saddington2012a | S6 |
| Architecting for Large Scale Agile Software Development: A Risk-Driven Approach | Ozkaya, Ipek and Gagliardi, Michael and Nord, Robert L | 2013 | ozkaya2013a | S7 |
| Driving quality improvement and reducing technical debt with the definition of done | Davis, Noopur | 2013 | davis2013a | S8 |
| Scrum Anti-Patterns--An Empirical Study | Eloranta, Veli-Pekka and Koskimies, Kai and Mikkonen, Tommi and Vuorinen, Jyri | 2013 | eloranta2013a | S9 |
| When agile meets the enterprise | Van Waardenburg, Guus and Van Vliet, Hans | 2013 | waardenburg2013a | S10 |
| Definition of ready: An experience report from teams at cisco | Power, Ken | 2014 | power2014a | S11 |
| Quantitative assessment with using ticket driven development for teaching scrum framework | Igaki, Hiroshi and Fukuyasu, Naoki and Saiki, Sachio and Matsumoto, Shinsuke and Kusumoto, Shinji | 2014 | igaki2014a | S12 |
| Social contracts, simple rules and self-organization: a perspective on agile development | Power, Ken | 2014 | power2014b | S13 |
| Integrating usability work into a large inter-organisational agile development project: Tactics developed by usability designers | Wale-Kolade, Adeola Yetunde | 2015 | wale2015a | S14 |
| Quality criteria for just-in-time requirements: just enough, just-in-time? | Heck, Petra and Zaidman, Andy | 2015 | heck2015a | S15 |
| Securing Scrum for VAHTI. | Rindell, Kalle and Hyrynsalmi, Sami and Leppänen, Ville | 2015 | rindell2015a | S16 |
| Towards a governance framework for chains of Scrum teams | Vlietland, Jan and van Vliet, Hans | 2015 | vlietland2015a | S17 |
| Aligning codependent Scrum teams to enable fast business value delivery: A governance framework and set of intervention actions | Vlietland, Jan and Van Solingen, Rini and van Vliet, Hans | 2016 | vlietland2016a | S18 |
| Exploring ScrumBut—An empirical study of Scrum anti-patterns | Eloranta, Veli-Pekka and Koskimies, Kai and Mikkonen, Tommi | 2016 | eloranta2016a | S19 |
| Pragmatic Approach for Managing Technical Debt in Legacy Software Project | Gupta, Rajeev Kumar and Manikreddy, Prabhulinga and Naik, Sandesh and Arya, Kavi | 2016 | gupta2016a | S20 |

# ▼ 2 Citation Matrix

1. The line identifies the article references were found via backward.
2. The column identifies who cited it via forward.
3. The "-" indicates that it is not possible for the article in the row to have references (cite) the article in the column, due to the year of publication.
4. The empty cell indicates that the id row/colum could have refer/cited the paper.

*For example, it can be seen how ID Row (2015 S17) refer to (2012 S6) and (2013 S10) columns of row 17, and how ID Colum (2015 S17) is cited by (2016 S18) lines of colum 17.*

Out[4]:

| cited<br>ref | id | 2007<br>S1 | 2009<br>S2 | 2010<br>S3 | 2010<br>S4 | 2011<br>S5 | 2012<br>S6 | 2013<br>S7 | 2013<br>S8 | 2013<br>S9 | 2013<br>S10 | 2014<br>S11 | 2014<br>S12 | 2014<br>S13 | 2015<br>S14 | 2015<br>S15 | 2015<br>S16 | 2015<br>S17 | 2016<br>S18 | 2016<br>S19 | 2016<br>S20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007<br>S1 | mitra2007a | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2009<br>S2 | barton2009a | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010<br>S3 | oconnor2010b | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2010<br>S4 | oconnor2010a | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2011<br>S5 | hoda2011a | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2012<br>S6 | saddington2012a | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2013<br>S7 | ozkaya2013a | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2013<br>S8 | davis2013a | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2013<br>S9 | eloranta2013a | | | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2013<br>S10 | waardenburg2013a | | | | | x | | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 2014<br>S11 | power2014a | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - |
| 2014<br>S12 | igaki2014a | | | | | | | | | | | - | - | - | - | - | - | - | - | - | - |
| 2014<br>S13 | power2014b | | | | | | | | | | | x | | | - | - | - | - | - | - | - |
| 2015<br>S14 | wale2015a | | x | | | | | | | | | | | | | | | | - | - | - |
| 2015<br>S15 | heck2015a | | | | | | | | | | | x | | | | | | | - | - | - |
| 2015<br>S16 | rindell2015a | | | | | | | | | | | | | | | | | | - | - | - |
| 2015<br>S17 | vlietland2015a | | | | | | x | | | | x | | | | | | | | - | - | - |
| 2016<br>S18 | vlietland2016a | | | | | | | | | | | | | | | | | x | | | |
| 2016<br>S19 | eloranta2016a | | | | | | | | | x | | | | | | | | | | | |
| 2016<br>S20 | gupta2016a | | | | | | | | | | | | | | | | | | | | |

Out[6]: 3

# 3 Matrix - Steps to Find Selected Article

Number of steps to find an article from the list of selected, through the articles found in the references and by whom cites it.
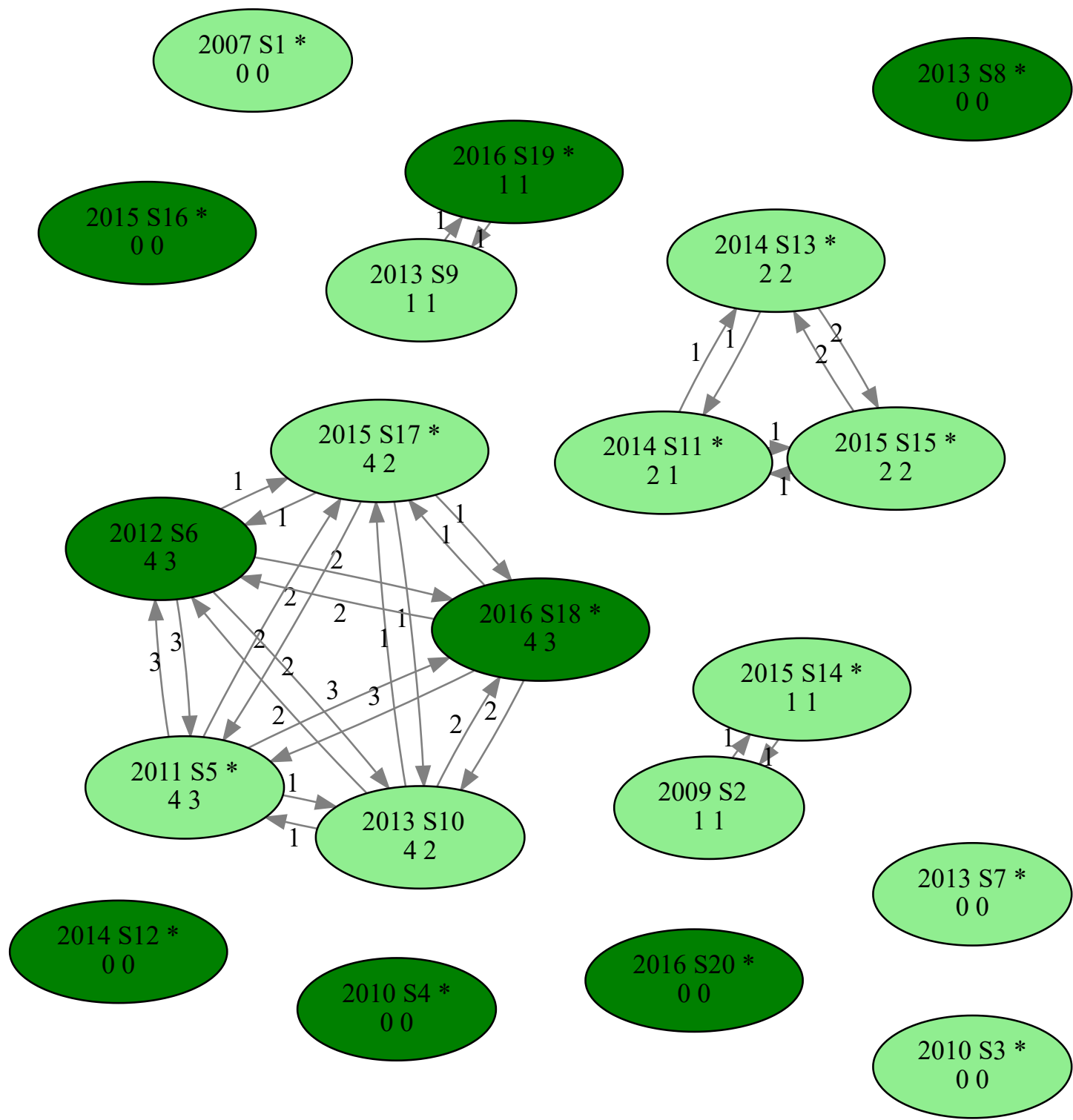
*Subtitle: inf = infinite steps*

Out[7]:

| cited<br>ref | id | 2007<br>S1 | 2009<br>S2 | 2010<br>S3 | 2010<br>S4 | 2011<br>S5 | 2012<br>S6 | 2013<br>S7 | 2013<br>S8 | 2013<br>S9 | 2013<br>S10 | 2014<br>S11 | 2014<br>S12 | 2014<br>S13 | 2015<br>S14 | 2015<br>S15 | 2015<br>S16 | 2015<br>S17 | 2016<br>S18 | 2016<br>S19 | 2016<br>S20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2007 S1 | mitra2007a | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf |
| 2009 S2 | barton2009a | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 1 | inf | inf | inf | inf | inf | inf |
| 2010 S3 | oconnor2010b | inf | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf |
| 2010 S4 | oconnor2010a | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf |
| 2011 S5 | hoda2011a | inf | inf | inf | inf | 0 | 3 | inf | inf | inf | 1 | inf | inf | inf | inf | inf | inf | 2 | 3 | inf | inf |
| 2012 S6 | saddington2012a | inf | inf | inf | inf | 3 | 0 | inf | inf | inf | 2 | inf | inf | inf | inf | inf | inf | 1 | 2 | inf | inf |
| 2013 S7 | ozkaya2013a | inf | inf | inf | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf |
| 2013 S8 | davis2013a | inf | inf | inf | inf | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf |
| 2013 S9 | eloranta2013a | inf | inf | inf | inf | inf | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf | inf | 1 | inf |
| 2013 S10 | waardenburg2013a | inf | inf | inf | inf | 1 | 2 | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf | 1 | 2 | inf | inf |
| 2014 S11 | power2014a | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 0 | inf | 1 | inf | 1 | inf | inf | inf | inf | inf |
| 2014 S12 | igaki2014a | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf | inf | inf |
| 2014 S13 | power2014b | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 1 | inf | 0 | inf | 2 | inf | inf | inf | inf | inf |
| 2015 S14 | wale2015a | inf | 1 | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 0 | inf | inf | inf | inf | inf | inf |
| 2015 S15 | heck2015a | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 1 | inf | 2 | inf | 0 | inf | inf | inf | inf | inf |
| 2015 S16 | rindell2015a | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 0 | inf | inf | inf | inf |
| 2015 S17 | vlietland2015a | inf | inf | inf | inf | 2 | 1 | inf | inf | inf | 1 | inf | inf | inf | inf | inf | inf | 0 | 1 | inf | inf |
| 2016 S18 | vlietland2016a | inf | inf | inf | inf | 3 | 2 | inf | inf | inf | 2 | inf | inf | inf | inf | inf | inf | 1 | 0 | inf | inf |
| 2016 S19 | eloranta2016a | inf | inf | inf | inf | inf | inf | inf | inf | 1 | inf | inf | inf | inf | inf | inf | inf | inf | inf | 0 | inf |
| 2016 S20 | gupta2016a | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | inf | 0 |

# 4  Graph Citation - Steps to Find Selected Article

Floyd-Warshall algorithm was used to generate the graph: Determines the distance between all the pairs of vertices of a graph and identify steps to find selected articles.

Subtitle: Node green color = is final selected; Node lightgreen color = not is final selected; Node with (*) = is seed set.



# 5  Backward and Forward - Details

1. Number of articles visited and how many steps was used to find the article from the list of selected;
2. Number of articles found via backward and how many were selected;
3. Number of articles found via forward and how many were selected.

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|------|---------|---------|-------|----------------|-------------------|---------------|------------------|---------------|------------------------|--------------|-------------|
| S1 | mitra2007a | 1 | 0 | 9 | 0 | 7 | 0 | poger2005a, werner2006a, krutchen2000a, cockburn2002a, beck2004a, bullinger2006a, mitra2005a, wirfs2002a, larman2002a | | abrahams2010a, abrahams2010b, abrahams2013a, ghosh2014a, abrahams2011a, burns2010a, connolly2008a | |
| S2 | barton2009a | 2 | 1 | 17 | 0 | 11 | 1 | scrum2009a, takeuchi1986b, sutherland2007b, ohno1988a, liker2004a, womack1996a, gorman2007a, wikipedia2009a, carlson2006a, hansen2007a, morris2008a, prager1970a, schwaber2002a, barton2007a, anderson2008a, schwaber2007a, smits2013a | | wang2012a, wang2011a, seikola2010a, fernández2011a, walczak2010a, ghezzi2018a, aaltonen2014a, nebi2016a, rundqvist2010a, tavares2017a, wale2015a | wale2 |
| S3 | oconnor2010b | 1 | 0 | 0 | 0 | 0 | 0 | | | | |
| S4 | oconnor2010a | 1 | 0 | 0 | 0 | 4 | 0 | | | oconnor2011a, abidin2017a, pitkänen2015a, mai2014a | |
| S5 | hoda2011a | 5 | 3 | 52 | 0 | 149 | 1 | grisham2005a, hanssen2006a, judy2008a, nerur2005a, hoda2010a, chow2008a, dybå2008a, highsmith2001a, martin2009a, misra2009a, fraser2004a, larman2003a, schwaber2002a, beck2000a, cockburn2004a, palmer2002a, stapleton1997a, highsmith2000a, pikkarainen2008a, cockburn2001a, martin2003a, schwaber2013b, sharp2008a, highsmith2004a, takeuchi1986a, augustine2005a, anderson2003a, chau2004a, fraser2003a, glaser1978a, glaser2005a, glaser1967a, hoda2010b, cockburn2003a, coleman2007a, allan2003a, parry1998a, georgieva2008a, glaser1992a, glasser2004a, strauss1998a, kan2004a, beaumont2010a, conboy2009a, cao2009a, mangalaraj2009a, korkala2006a, lowery2007a, mann2005a, boehm2003a, hoda2010c, adolph2008a | | inayat2015b, conforto2014a, hoda2012b, senapathi2012a, stol2016a, gandomani2015a, conforto2016a, hoda2011b, hummel2014a, moran2016a, gregory2016a, gandomani2014a, hoda2016a, bass2013a, gandomani2015b, bass2015a, bass2014a, gregory2015a, hoda2011c, alahyari2017a, sverrisdottir2014a, hoda2011d, kirk2012a, gandomani2016a, gandomani2014b, sharif2014a, stojanov2011a, gandomani2013a, stojanov2012a, diebold2015a, yagüe2016a, parizi2014a, zhang2016b, saleh2011a, kanwal2014a, eichhorn2015a, gandomani2013b, batra2016a, babb2014a, baumgart2015a, beranek2014a, shawky2014a, eichhorn2014a, dönmez2018a, shastri2017a, gonzález2015a, mchugh2011a, roses2016a, stanica2016a, alqudah2017a, mckinley2015a, otaduy2017a, marshall2016b, tareq2016a, bordin2017a, kristinsdóttir2014a, shameem2017a, jovanovi2017a, cornelius2014a, shirouyehzad112015a, persson2016a, kristinsdottir2016a, ng2014b, hutten2015a, gonzález2016a, hall2016a, sunner2016a, stettina2015b, kakar2017a, kakar2018a, kråkevik2018a, liebel2013a, vanathi2014a, tahir2011a, ejaz2017a, júnior2014a, idea2015a, rathor2016a, tootoonchi2016a, bass2018a, ghimire2016a, | waardent |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | kuusinen2017a, rajadurai2013a, truszczynski2016a, ramadani2015a, batra2017a, tessem2017a, singh2017a, zaitsev2016a, babb2017a, klünder2017a, waardenburg2011a, gandomania2015a, bass2014ab, razzak2017a, rathor2016ab, carew2017a, amaral2014a, werder2017a, li2017a, hellemond2014a, salleh2018a, werder2016a, bass2018c, gandomani2013c, tolfo2018a, oomen2017a, gjøystdal2017a, haines2017a, mehmeti2014a, obrutsky2017a, slater2017a, ojastu2015a, rodríguez2018a, gichuki2017a, ochodek2018a, abdul2017a, gandomani2016b, bass2016b, mohamed2015a, torstensen2015a, ikram2015a, read2015a, singh2016b, murugesan2016a, bass2018b, regassa2017a, litchmore2016a, amrit2017a, iyawa2016a, kimawati2017a, nielsen2012b, eichhorn2018a, reljanovic2015a, roslund2015a, junior2012a, gencer2017a, krogh2014a, porrawatpreyakorn2012a, bordin2017b, almeida2011a, cengiz2017a, widell2015a, jovanovi2017b, lang2014a, benassi2013a, gonzález2017a, combler2017a, waardenburg2013a | |
| S6 | saddington2012a | 5 | 3 | 1 | 0 | 5 | 1 | myai2012a | | haaster2014a, vlietland2015b, kalenda2018a, haaster2015a, vlietland2015a | vlietlan |
| S7 | ozkaya2013a | 1 | 0 | 6 | 0 | 2 | 0 | grant2012a, leffingwell2007a, bachmann2012a, nanette2010a, lapham2011a, bass1998a | | gagliardi2013a, japan2015a | |
| S8 | davis2013a | 1 | 0 | 8 | 0 | 8 | 0 | humphrey2013a, jones2011a, boehm1981a, rothman2000a, one2012a, scrum2013a, agile2013a, davis2013b | | yli2016a, malhotra2016a, texel2015a, alotaibi2014a, gong2017a, alotaibi2014b, diebold2018a, kyheröinen2018a | |
| S9 | eloranta2013a | 2 | 1 | 16 | 0 | 12 | 2 | alliance2001a, brown1998b, cockburn2001b, coplien2010a, dybå2008a, easterbrook2008a, veli2012a, lindvall2004a, petersen2009a, pikkarainen2008a, salo2008a, schwaber1995a, sutherland2001a, sutherland2010a, schwaber2011a, versionone2012a | | järvinen2014a, eloranta2016a, lópez2016a, hoda2017a, sharma2016a, ramirez2016a, khelladi2015a, koski2015a, eloranta2015b, lópez2017a, carew2017a, eloranta2016a | eloranta eloranta |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S10 | waardenburg2013a | 5 | 2 | 81 | 1 | 69 | 1 | abrahamsson2003a, adolph2011a, adolph2012a, agarwal2002a, allan2003a, augustine2005a, baskerville2011a, beck2001a, benefield2008a, birks2013a, boehm2002a, boehm2006c, boehm2002b, boehm2005a, boehm1988a, brown2013a, cao2009a, chan2009a, cockburn2002a, cockburn2001a, cohn2003a, coleman2007a, conboy2009a, conboy2007a, denison1991a, dingsøyr2012a, drobka2004a, dybå2008a, fraser2004a, glaser1978b, glaser1992a, glaser1998a, glaser1967b, grisham2005a, harvey1974a, he2004a, heidenberg2010a, hoda2011a, hoda2012a, hoda2013a, iivari2011a, isham2008a, janis1972a, karlström2006a, kettunen2008a, kruchten2013a, kurapati2012a, laanti2011a, larman2009a, levina2005a, lindvall2004a, magdaleno2012a, matavire2013a, mcavoy2009a, mishra2011a, misra2009a, moore2008a, nerur2005a, ogc2009a, parry1998a, ferreira2011a, petersen2009a, petersen2010a, pikkarainen2008a, pikkarainen2012a, pink2009a, rasmusson2003a, robinson2005a, schwaber1991a, siakas2007a, star1989a, strauss1988a, strode2012a, strode2009a, sutherland2001a, svensson2005a, tanis2000a, tolfo2008a, vanvliet2008a, vijayasarathy2012a, vinekar2006a | hoda2011a | campanelli2015a, gregory2016a, tarhan2014a, vlietland2015a, bass2015a, bass2014a, gregory2015a, heikkilä2015a, tomanek2015a, barroca2018a, kuusinen2016a, fitriani2016a, berger2015a, singh2015a, laukkanen2016a, baseer2015a, manen2014a, bishop2016a, morken2014a, joseph2017a, darnell2015a, jovanovi2017a, cornelius2014a, kusters2017a, hron2018a, campanelli2018a, behm2015a, petrik2015a, diebold2016a, campanelli2014a, deley2017a, theobald2018a, laukkanen2018a, haaster2014a, kalliamvakou2017a, patel2017a, felipe2015a, zhang2016a, joseph2016a, bass2014b, haaster2016a, homrich2015a, alzoubi2016b, haines2017a, confidential2016, östman2017a, felipe2015b, musura2017a, chassart2016a, vlietland2015b, sulaiman2018a, vrhovec2016a, luger2015a, alkema2017a, haaster2015a, kinnunen2018a, garbulho2017a, norberg2016a, leur2016a, assis2017a, roslund2015a, järvi2018a, gencer2017a, norberg2016b, almeida2017a, garcia2017b, jovanovi2017b, assis2017b, salopaasi2014a | vlietlan |
| S11 | power2014a | 3 | 1 | 5 | 0 | 17 | 2 | power2011a, rubin2012a, pilcher2015a, cohn2009a, sutherland2012a | | heck2015a, dennehy2017a, heck2018a, power2014c, heck2017a, ahmad2018a, heck2017b, myers2017a, power2015b, dennehy2016a, connor2017a, conboy2018a, heck2016a, diebold2018a, ochodek2018a, holvitie2018a, power2014b | heck2 power |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|------|---------|---------|-------|----------------|-------------------|---------------|------------------|---------------|------------------------|--------------|-------------|
| S12 | igaki2014a | 1 | 0 | 20 | 0 | 14 | 0 | bang2013a, cheng2000a, clark2005a, cockburn2003b, santos2013a, fukuyasu2012a, button1996a, hosono2012a, mahnic2012a, paasivaara2013a, persson2011a, rocha2013a, schar2011a, scharff2010a, scrum2013a, sommerville2010a, tai2007a, kilamo2012a, webb1995a, yamin2010a | | mahni2015a, matthies2016b, matthies2016a, itsuda2015a, herrmann2017a, japan2015b, ju2017a, ju2018a, chishiro2018a, japan2018a, japan2017a, japan2017b, japan2017c, melo2016a | |
| S13 | power2014b | 3 | 2 | 25 | 1 | 3 | 0 | qvortrup2003a, rawls1971a, jos2006a, wikipedia2014a, binmore1998a, gat2009a, gat2009b, atlas2009a, appelo2011a, dooley1997a, snowden2007a, vasconcelos2011a, stacey1996a, cohn2009a, schwaber2011b, eoyang2013a, eoyang2013b, eoyang2001a, rubin2012a, power2014a, olson2001a, kerth2001a, emery2003a, tabaka2006a, derby2006a | power2014a | fontana2015a, power2014d, walter2015a | |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S14 | wale2015a | 2 | 1 | 66 | 1 | 14 | 0 | abrahamsson2003a, abrahão2010a, adikari2009a, ambler2008a, barksdale2009a, barton2009a, benbasat1987a, blomkvist2005a, boivie2006a, bonacin2009a, bowen2009a, brown2011a, brown2012a, bygstad2011a, cajander2013a, chamberlain2006a, chow2008a, conboy2009a, düchting2007a, ferré2001a, ferreira2010a, ferreira2011a, ferreira2012a, fitzgerald2006a, fox2008a, hartson2012a, herbsleb2007a, hsieh2005a, hussain2009b, geneva2006a, isomursu2012a, jokela2004a, juristo2007a, kollmann2009a, kuusinen2012a, lárusdóttir2012a, lee2011b, lievesley2006a, mcinerney2005a, meingast2013a, miles1994a, misra2009a, myers1997a, myers2007a, najafi2008a, nielsen2012a, norman2006a, paasivaara2003a, paasivaara2010a, raison2013a, schwaber2002a, schwaber2011a, sein2011a, sharp2009a, silva2011b, silva2013b, singh2008a, sutherland2007a, wale2013a, walsham1995a, williams2007a, vallon2013a, vaughan1998a, yin1994a, acm2006a, ågerfalk2009a | barton2009a | law2015a, kuusinen2015a, eshet2016a, fitriani2016a, mateen2017a, hernández2017a, garcia2017a, sagar2017a, lárusdóttir2016a, salin2015a, hernández2017b, yusuf2016a, silva2017b, martínez2016a | |
| S15 | heck2015a | 3 | 2 | 18 | 1 | 7 | 0 | iiba2009a, robertson2000a, ieee1998a, ernst2012a, inayat2014a, heck2013a, heck2014a, herzig2012a, bettenburg2008a, heck2014ab, leffingwell2011a, doran1981a, wake2003a, heck2009a, power2014a, alspaugh2013a, fitzgerald2012a, adzic2011a | power2014a | oliveira2017a, do2017a, reddivari2018a, heck2016a, bhowmik2018a, hollis2017a, abdou2018a | |
| S16 | rindell2015a | 1 | 0 | 20 | 0 | 3 | 0 | vahtiohje2015a, cp2010a, beck2001a, bsimm2015a, win2001a, deemer2012a, diaz2009a, fitzgerald2013a, vahtiohje2013a, vahtiohje2015b, howard2005a, isoiec2008a, jarvinen2004a, microsoft2012a, pietikäinen2014a, rindell2015b, solinski2016a, tsipenyuk2005a, versionone2013b, williams2003a | | rindell2016a, rindell2017a, rindell2017b | |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S17 | vlietland2015a | 5 | 2 | 100 | 2 | 30 | 1 | ågerfalk2005a, ambler2012a, andrei2006a, baltacioglu2007a, bannerman2012a, batra2010a, bazerman1994a, beck2001b, begel2009a, birks2011a, boonstra2003a, brown2005a, brown2013a, calvert1995a, candea2010a, cockburn2006a, datta2011a, desanctis1993a, dingyr2013a, dingsøyr2013a, dorairaj2012a, dove2014a, dul2008a, eisenhardt1989a, eisenhardt1992a, feitelson2013a, fitzgerald2014b, freudenberg2010a, galbraith1995a, garg2009a, gibbert2010a, glaser1967a, goffman1959a, green2010a, gregory2011a, hardion2013a, harland1996a, henneman1995a, hildenbrand2008a, huberman1984a, humble2010a, jalali2012a, jonker2011a, jyothi2011a, kim2008a, kniberg2012a, knight2001a, kruchten2013a, larman2013a, lee2010a, leffingwell2007a, lehto2009a, lewis2011a, locke1990a, malone1990a, marshall1996a, mathieu2000a, mentzer2001a, mentzer1997a, mishra2011a, moe2008a, muşlu2013a, myers2007a, olsson2012a, oppenheim2011b, paasivaara2012a, petersen2009a, port2009a, rautiainen2011a, rising2000a, saddington2012a, sahin2005a, saldana2009a, sandelowski1995a, saunders2003a, scheerer2014a, schnitter2011a, schwaber2004a, schwaber2007b, sharp2008a, sharp2010a, soundararajan2012a, ståhl2014b, strode2012a, sutherland2005a, sutherland2008a, sutherland2007a, talby2009a, takeuchi1986a, vlietland2013a, vlietland2014a, vlietland2014b, waardenburg2012a, wegner1987a, wei2010a, wiener1965a, woodward2010a, yin1981a, yin2009a, waardenburg2013a | saddington2012a, waardenburg2013a | bass2016a, dingsøyr2018a, krimpmann2015a, batra2016a, moe2017a, almutairi2015a, dingsøyr2018b, jigeesh2015a, stettina2015b, aintila2016a, bjørnson2018a, sensuse2017a, imani2018a, aamir2017a, mansouri2015a, patel2017a, pages2014a, bonassa2016a, krimpmann2015b, haaster2016a, oomen2017a, vlietland2015b, noll2017a, syversen2016a, musa2017a, andreassen2015a, arango2017a, jr2015a, sousa2015a, vlietland2016a | vlietlan |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S18 | vlietland2016a | 5 | 3 | 71 | 1 | 8 | 0 | akbar2011a, ambler2009b, banbury2010a, bartlett2007a, baskerville1999a, baskerville1996a, batra2010a, beedle2013a, brown2005a, clarke2013a, cummings2014a, dorairaj2012a, easterbrook2008a, gersick1991a, hannan1984a, holz2004a, hoyle2001a, humble2010a, ieee2008a, ilgen2005a, jonker2011a, jrad2014a, kniberg2012a, kolb1984a, krueger1994a, larman2013a, leffingwell2007a, leffingwell2010a, lim2006a, mathieu2000a, melville2004a, moe2008a, moniruzzaman2013a, morgan2002a, neely2013a, olsson2012a, paasivaara2012a, pikkarainen2005a, plugge2009a, port2009a, qumer2008a, rautiainen2011a, rising2000a, romanelli1994a, runeson2009a, salo2005a, scheerer2014a, schnitter2011a, soundararajan2009a, stacey1995a, stelzer1998a, stettina2015a, susman1978a, sutherland2005a, schwaber2013a, takeuchi1986a, talby2009a, cp2010a, tfsc2011a, unterkalmsteiner2012a, vacanti2014a, bon2007a, tiem2006a, versionone2013a, vlaanderen2011a, vlietland2014a, vlietland2014b, vlietland2015a, walsham1995b, weich1999a, yamakami2013a | vlietland2015a | bass2016a, lappi2017a, perkusich2017b, buul2016a, syversen2016a, ziebell2016a, ziebell2018a, ziebell2016b | |
| S19 | eloranta2016a | 2 | 1 | 21 | 2 | 13 | 0 | eloranta2013a, manifesto2001a, brown1998a, cockburn2002a, coplien2010a, dybå2008a, easterbrook2008a, eloranta2015a, lindvall2004a, petersen2009a, pikkarainen2008a, salo2008a, schwaber1995a, sutherland2001a, sutherland2010a, schwaber2011a, versionone2012a, eloranta2013a, org2015a, jeffries2003a, cockburn2004a | eloranta2013a, eloranta2013a | fitriani2016a, rahayu2016a, silva2017a, perkusich2017a, smiari2018a, przybyłek2017a, helwerda122017a, carew2017a, perkusich2017b, totten2017a, george2018a, erukulapati2017a, karkimo2018a | |

| tudy | Metakey | Visited | Steps | Total Backward | Selected Backward | Total Forward | Selected Forward | Backward List | Selected Backward List | Forward List | Selected Li |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S20 | gupta2016a | 0 | 0 | 34 | 0 | 1 | 0 | andansare2014a, marschal2011a, cockburn2008a, meter2016a, coder2009a, codovation2012a, coverity2016a, coverity2016b, cppcheck2016a, designtool2016a, designtool2016b, dsdm2016a, eclemma2016a, fowler2008a, findbugs2016a, suryanarayana2014a, sharma2015a, breault2015a, fowler2003a, fowler2009a, mindtools2016a, ncover2016a, newing2012a, perfmon2016a, bob2009a, simian2016a, seaman2012a, cube2009a, campwood2016a, heusser2011a, shore2016a, msft2013a, feathers2016a, li2016b | | gupta2016b | |