167, TITLE: Path Planning with CPD Heuristics
https://www.ijcai.org/proceedings/2019/167
AUTHORS: Massimo Bono, Alfonso E. Gerevini, Daniel D. Harabor, Peter J. Stuckey
HIGHLIGHT: In this work we investigate CPDs as admissible heuristic functions and we apply them in two distinct settings: problems where the graph is subject to dynamically changing costs, and anytime settings where deliberation time is limited.

168, TITLE: A*+IDA*: A Simple Hybrid Search Algorithm
https://www.ijcai.org/proceedings/2019/168
AUTHORS: Zhaoxing Bu, Richard E. Korf
HIGHLIGHT: We present a simple combination of A* and IDA*, which we call A*+IDA*.

169, TITLE: Deanonymizing Social Networks Using Structural Information
https://www.ijcai.org/proceedings/2019/169
AUTHORS: Ioannis Caragiannis, Evanthia Tsitsoka
HIGHLIGHT: We present two algorithms that attack the problem by exploiting only the structure of the two graphs.

170, TITLE: Conditions for Avoiding Node Re-expansions in Bounded Suboptimal Search
https://www.ijcai.org/proceedings/2019/170
AUTHORS: Jingwei Chen, Nathan R. Sturtevant
HIGHLIGHT: This paper explores the properties of priority functions that can find bounded suboptimal solution without requiring node re-expansions.

171, TITLE: An Efficient Evolutionary Algorithm for Minimum Cost Submodular Cover
https://www.ijcai.org/proceedings/2019/171
AUTHORS: Victoria G. Crawford
HIGHLIGHT: In this paper, the Minimum Cost Submodular Cover problem is studied, which is to minimize a modular cost function such that the monotone submodular benefit function is above a threshold.

172, TITLE: An Evolution Strategy with Progressive Episode Lengths for Playing Games
https://www.ijcai.org/proceedings/2019/172
AUTHORS: Lior Fuks, Noor Awad, Frank Hutter, Marius Lindauer
HIGHLIGHT: In this work, we introduce Progressive Episode Lengths (PEL) as a new technique and incorporate it with ES.

173, TITLE: Regarding Jump Point Search and Subgoal Graphs
https://www.ijcai.org/proceedings/2019/173
AUTHORS: Daniel D. Harabor, Tansel Uras, Peter J. Stuckey, Sven Koenig
HIGHLIGHT: In this paper, we define Jump Point Graphs (JP), a preprocessing-based path-planning technique similar to Subgoal Graphs (SG).

174, TITLE: Iterative Budgeted Exponential Search
https://www.ijcai.org/proceedings/2019/174
AUTHORS: Malte Helmert, Tor Lattimore, Levi H. S. Lelis, Laurent Orseau, Nathan R. Sturtevant
HIGHLIGHT: We describe a new algorithmic framework that iteratively controls an expansion budget and solution cost limit, giving rise to new graph and tree search algorithms for which the number of expansions is $O(n \log C^*)$, where C^* is the optimal solution cost.

175, TITLE: Direction-Optimizing Breadth-First Search with External Memory Storage
https://www.ijcai.org/proceedings/2019/175
AUTHORS: Shuli Hu, Nathan R. Sturtevant
HIGHLIGHT: This paper shows how to modify direction-optimizing breadth-first search to build external-memory heuristics.

176, TITLE: DeltaDou: Expert-level Doudizhu AI through Self-play
https://www.ijcai.org/proceedings/2019/176
AUTHORS: Qiqi Jiang, Kuangzheng Li, Boyao Du, Hao Chen, Hai Fang
HIGHLIGHT: In this paper, we present a Doudizhu AI by applying deep reinforcement learning from games of self-play.

177, TITLE: Graph Mining Meets Crowdsourcing: Extracting Experts for Answer Aggregation
https://www.ijcai.org/proceedings/2019/177
AUTHORS: Yasushi Kawase, Yuko Kuroki, Atsushi Miyauchi

HIGHLIGHT: In this study, we introduce the notion of "expert core", which is a set of workers that is very unlikely to contain a non-expert.

178, TITLE: Depth-First Memory-Limited AND/OR Search and Unsolvability in Cyclic Search Spaces
https://www.ijcai.org/proceedings/2019/178
AUTHORS: Akihiro Kishimoto, Adi Botea, Radu Marinescu
HIGHLIGHT: We give a new theoretical analysis under relaxed assumptions where previous results no longer hold.

179, TITLE: Branch-and-Cut-and-Price for Multi-Agent Pathfinding
https://www.ijcai.org/proceedings/2019/179
AUTHORS: Edward Lam, Pierre Le Bodic, Daniel D. Harabor, Peter J. Stuckey
HIGHLIGHT: In this work, we present an optimal algorithm, BCP, that hybridizes both approaches using Branch-and-Cut-and-Price, a decomposition framework developed for mathematical optimization.

180, TITLE: Local Search with Efficient Automatic Configuration for Minimum Vertex Cover
https://www.ijcai.org/proceedings/2019/180
AUTHORS: Chuan Luo, Holger H. Hoos, Shaowei Cai, Qingwei Lin, Hongyu Zhang, Dongmei Zhang
HIGHLIGHT: In this work, we present a new local search framework for MinVC called MetaVC, which is highly parametric and incorporates many effective local search techniques.

181, TITLE: Learning Deep Decentralized Policy Network by Collective Rewards for Real-Time Combat Game
https://www.ijcai.org/proceedings/2019/181
AUTHORS: Peixi Peng, Junliang Xing, Lili Cao, Lisen Mu, Chang Huang
HIGHLIGHT: To train DDPN effectively, a novel two-stage learning algorithm is proposed which combines imitation learning from opponent and reinforcement learning by no-regret dynamics.

182, TITLE: Heuristic Search for Homology Localization Problem and Its Application in Cardiac Trabeculae Reconstruction
https://www.ijcai.org/proceedings/2019/182
AUTHORS: Xudong Zhang, Pengxiang Wu, Changhe Yuan, Yusu Wang, Dimitris Metaxas, Chao Chen
HIGHLIGHT: In this work, we formulate the problem as a heuristic search problem, and propose novel heuristic functions based on advanced topological techniques.

183, TITLE: Non-smooth Optimization over Stiefel Manifolds with Applications to Dimensionality Reduction and Graph Clustering
https://www.ijcai.org/proceedings/2019/183
AUTHORS: Fariba Zohrizadeh, Mohsen Kheirandishfard, Farhad Kamangar, Ramtin Madani
HIGHLIGHT: This paper is concerned with the class of non-convex optimization problems with orthogonality constraints.