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**AMID et al.**(10) **Pub. No.: US 2015/0227848 A1**(43) **Pub. Date: Aug. 13, 2015**(54) **OBJECTIVE WEIGHING AND RANKING****Publication Classification**(71) Applicant: **International Business Machines Corporation**, Armonk, NY (US)(51) **Int. Cl.**  
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**G06N 99/00** (2006.01)(72) Inventors: **David AMID**, Kiryat Ata (IL); **Ateret ANABY-TAVOR**, Givat Ada (IL); **David BOAZ**, Bahan (IL); **Dmitry A. MOOR**, Moscow (RU); **Ofer Michael SHIR**, Jerusalem (IL)(52) **U.S. Cl.**  
CPC ..... **G06N 7/00** (2013.01); **G06N 99/005** (2013.01)(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)(57) **ABSTRACT**

A method comprising using at least one hardware processor for: receiving a multi-objective optimization problem; projecting a Pareto frontier of candidate solutions for said multi-objective optimization problem to a hyperplane; decomposing said hyperplane into multiple Voronoi regions each associated with a candidate solution of said candidate solutions; determining a robustness degree for each candidate solution of said candidate solutions, by computing a hyper-volume for each region of said multiple Voronoi regions; and ranking said candidate solutions based on the robustness degree.

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