1037-05-127 Frederic Havet* (fhavet@sophia.inria.fr), 2004 route des Lucioles, BP93, 06902 Sophia-Antipolis, France, and Daniel Kral, Jean-Sebastien Sereni and Riste Skrekovski. Facial coloring.
A vertex coloring of a plane graph is $l$-facial if every two vertices joined by a facial walk of length at most $l$ receive distinct colors. It has been conjectured that every plane graph has an $l$-facial coloring with at most $3 l+1$ colors. We improve the currently best known bound and show that every plane graph has an $l$-facial coloring with at most $\lfloor 7 l / 2\rfloor+6$ colors. (Received January 29, 2008)

