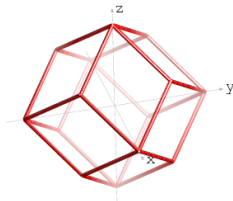


ŽIVA MATEMATIKA

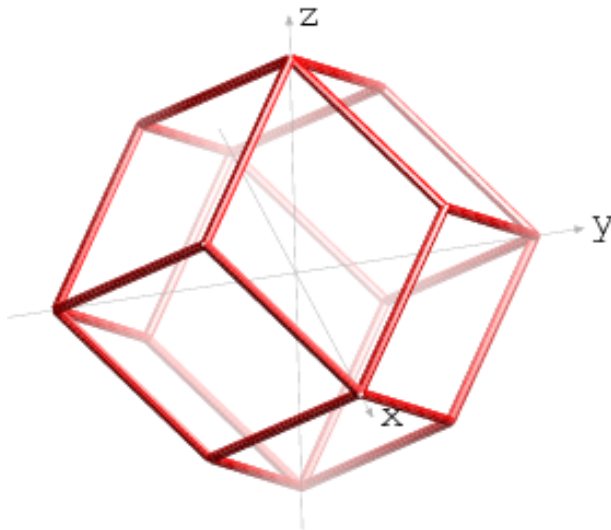


Rade Živaljević

Matematički institut SANU, Beograd

Seminar o nastavi matematike i računarstva
u srednjim i osnovnim školama
Beograd 2014

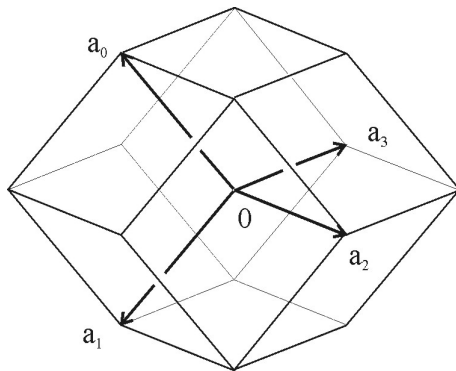
Rombododekaedar



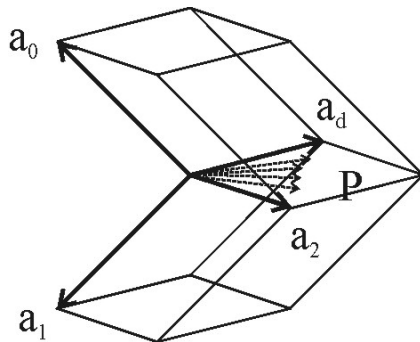
Rombododekaedar kao unija 4 paralelopipeda

$$\Delta = \text{conv}\{a_0, a_1, a_2, a_3\}; \quad K_\Delta = [0, a_0] + [0, a_1] + [0, a_2] + [0, a_3].$$

K_Δ je primer zonotopa.

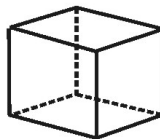
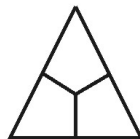
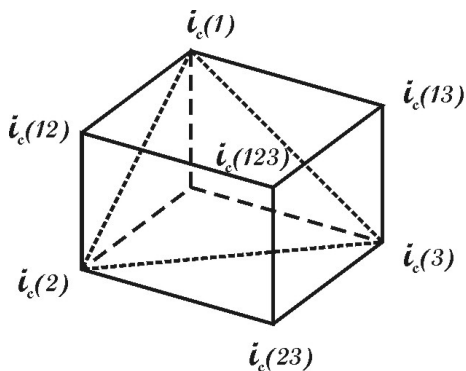


*Rombododekaedar je dual konveksnog
omotača korenog sistema A_3*

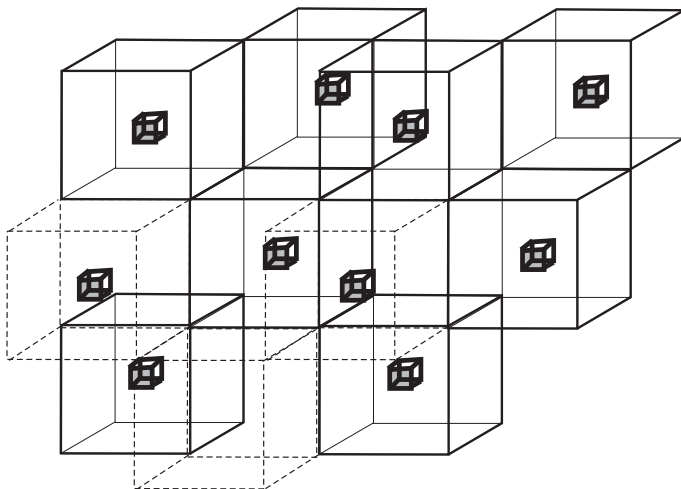


$$(\Delta - \Delta)^\circ = (\text{conv}(A_d))^\circ = \bigcap_{i \neq j} H_{i,j} = R_\Delta.$$

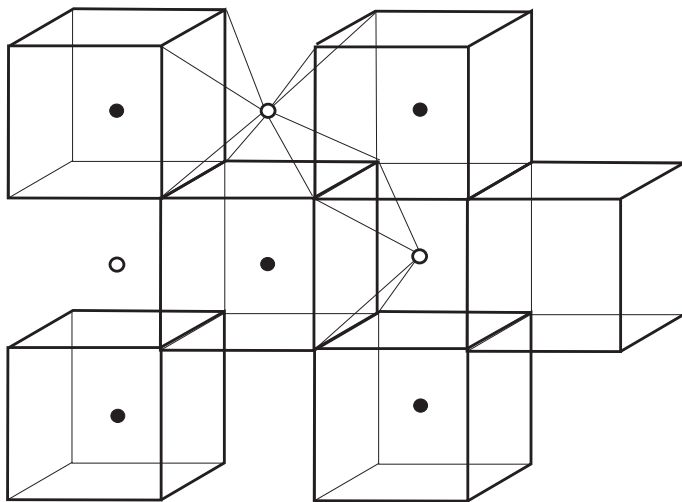
Rombododekaedar kao prednje lice paralelepipeda



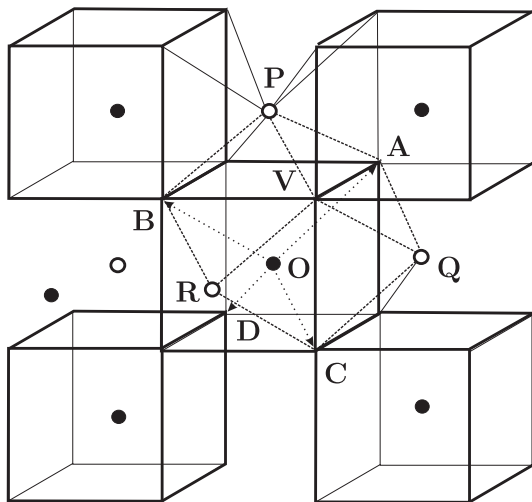
Trodimenionalna šahovska tabla



Piramide nad kockama



Rombododekaedri popločavaju prostor



Rombododekaedar u prirodi



Rombododekaedar u prirodi



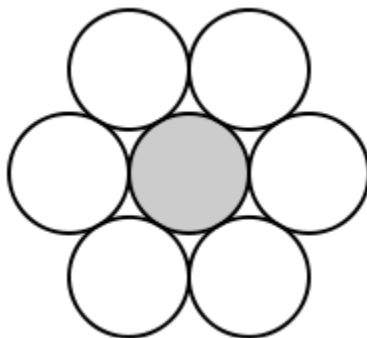
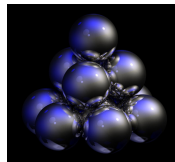
Tajna zemunske piramide



Tajna zemunske piramide

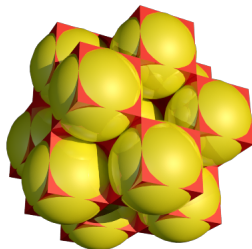


Tajna zemunske piramide

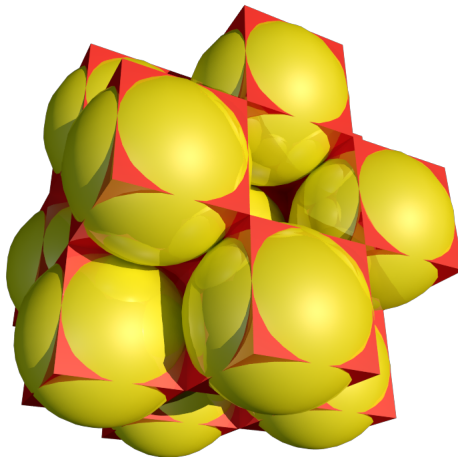


Magična veza piramide od pomorandži sa rombododekaedrom

Slojevi pomorandži u piramidi su ortogonalni na velike dijagonale kocki u $3d$ šahovskoj tabli.



Ovo objašnjava pojavu rombododekaedra u kristalima.



Radionica "Tajna zemunske piramide" u Zemunskoj gimnaziji



Popločavanje prostora rombododekaedrima od slamki



Maj mesec matematike u Zemunskoj gimnaziji



Profesori i učenici, učesnici radionice "Tajna zemunske piramide"