

Seeding and numbering



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Organise tournament



- Make schedule/movement
- Divide players into groups
- Number players within a group
- Repeat last two steps for multistage tournament
- And of course, run the tournament...

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What are groups?

- Any movement consists of some groups playing each other
- In a Howell usually one group
- In a Mitchell two groups (NS, EW)
- Some stanza movements more groups

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More complex grouping

- A simple Howell 8 could be seen as two groups(1 group of 7 movers, 1 sitter)
- An appendix Mitchell could be 4 groups
 - Stationary NS
 - Moving EW
 - Stationary appendix
 - Moving appendix

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Group sizes

- Normally for a multisession stage you try one group-size, plus some extra's
- Example: 3 sessions of 7x3 boards
- Basic movement: 7 table Mitchell
- Depending on number of contestants potentially a 7 round (short) Howell, or an appendix to a Mitchell

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Example group sizes

- 46 pairs, this is $3 \times 14 + 4$
- Run 3xMitchell14, once with two appendices
- Group sizes: 6 groups of 7, 2 groups of 2
- 52 pairs, this is $3 \times 14 + 10$
- Run 3xMitchell14, plus 7rnd short Howell10
- Group sizes: 7 groups of 7, 1 group of 3

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Putting pairs in groups

- Which pairs will go into which group?
- Normal procedure: try to balance groups in strength
- Extra: balance groups in other criteria, such as club or country
- This process is called seeding

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Trivial example

- 42 pairs, 6 groups of 7, ranking available
- Seesaw seeding

Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
1	2	3	4	5	6
12	11	10	9	8	7
13	14	15	16	17	18
24	23	22	21	20	19
25	26	27	28	29	30
36	35	34	33	32	31
37	38	39	40	41	42

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More complex

- 52 pairs, $7 \times 7 + 3$

1	2	3	4	5	6	7	X
15	14	13	12	11	10	9	8
16	17	18	19	20	21	22	X
30	29	28	27	26	25	24	23
31	32	33	34	35	36	37	X
45	44	43	42	41	40	39	38
46	47	48	49	50	51	52	X

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Less knowledge

- Normally pairs are not ordered in strength so absolutely
- More normal is some 4 to 6 strength brackets
- So while seeding there are at each position more candidates
- We can use this freedom for another purpose

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More knowledge


- Each pair does not only have a strength, but also something else
- For this lecture it is *country*
- Now we might balance the countries over the groups while seeding
- At each position in the seeding we choose candidate of right strength balancing the group in respect to country

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End effect

- If we do all this right, we can divide players into groups of same strength, and balanced in country percentage
- So if stage has 40% Polish pairs, each group will have (roughly) 40% Polish pairs
- There is software available to do it

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Software: seeding

- All software uses input per pair
- Pair-id1, Pair-id2, strength, extra
- Two pair-id's, perhaps name and database-id
- Example:
 - Bocchi-Duboin, 7635, 1, Italy
 - Beks-van Staveren, 823, 99, Netherlands
- Strength: low number stronger than high number

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Seeding input, 52 pairs


8	<i>Number of groups</i>		
7	<i>Size group 1</i>		
7			
7			
7			
7			
7			
7			
7			
3	<i>Size group 8</i>		
Bocchi-Duboin	7635	1	Italy

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Demo seeding


- Show input file
- Run program
- Show output file
- This software is designed to be used by other software
- Humans can use it too, more or less

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Numbering players in a group

- Now we have our movement and our groups
- How do we number the pairs in the group?
- This has effect on the sequence they meet other pairs or are met by them
- Shuffling pairs in a group is possible
- If we have pairs from different countries, there is another thing to think about

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Late meetings


- In any stage there will be gossip when two friends meet in the last round
- Especially if the result of their encounter decides the stage for the highest ranking one
- Players are mostly honest, but just to stop the gossip...

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Avoid late meetings


- When numbering pairs in a group you can influence the last round country-men meet
- This depends on movement
- In multisession stages there is a dilemma: numbers per session or for whole stage

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Multi session stages


- If you number groups for each session you avoid late meetings in all sessions
 - Pairs have different number for each session
- If you number groups only for last session you avoid only late meetings for whole stage
 - Pairs keep same number
- What can your organization and pairs do?

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Software: numberlines


- Input format of pairs same as for *seeding*
- Needs info about:
 - Number of rounds in the movement
 - Number of meetings per round
 - Number of groups of contestants in the meeting
 - For each such group, the size
 - For each round, for each meeting in this round, the numbers of the two contestants meeting

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Example Howell-8


7	<i>Number of rounds</i>
4	<i>Meetings per round</i>
1	<i>Number of groups</i>
8	<i>Contestants per group</i>
1 8 2 7 3 6 4 5	
2 8 3 1 4 7 5 6	
3 8 4 2 5 1 6 7	
4 8 5 3 6 2 7 1	<i>Meetings</i>
5 8 6 4 7 3 1 2	
6 8 7 5 1 4 2 3	
7 8 1 6 2 5 3 4	

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Numberlines groups


- Numberlines rennumbers within groups
- So in a Mitchell with two groups (NS and EW) the NS pairs will be renumbered, and the EW pairs, but no NS pair is moved EW or VV
- Not meeting at all is best. In some movements(Skip-Mitchell?) this can happen

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Example Howell-8 with sitter


7	<i>Number of rounds</i>
4	<i>Meetings per round</i>
2	<i>Number of groups</i>
7	<i>Contestants per group</i>
1	
1 8 2 7 3 6 4 5	
2 8 3 1 4 7 5 6	<i>Meetings</i>
3 8 4 2 5 1 6 7	
4 8 5 3 6 2 7 1	
5 8 6 4 7 3 1 2	
6 8 7 5 1 4 2 3	
7 8 1 6 2 5 3 4	

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Balance


- Numberlines is not interested in balance
- Whether pair1 is NS or EW against pair2 is irrelevant
- Only meetings count
- Balance is important of course
- Outside the scope of this program

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Individual movements


- Both *seeding* and *numberlines* can handle individuals
- In *numberlines* any meeting is actually 4 or 6 meetings, depending if you count your partner
 - N meets E and W, S meets E and W
 - Perhaps N meets S and E meets W

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Demo numberlines


- Show input file
- Run program
- Show output file
- One run for Mitchell type
- One for Barometer Howell

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Software availability and use

- Software is freely available
 - Source, binary, documentation
- Software has been used in international championships already

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Questions?



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