This Afternoon's Program, Tuesday, Feb 6 :

Status of Present Detectors Chair: A. Rüdiger

16:30	**B. Willke**	GEO 600
16:55	Discussion	
17:05	**M. Barton**	LIGO
17:30	Discussion	
17:40	Coffee break	
17:55	**K. Kuroda**	TAMA 300
18:20	Discussion	
18:30	**G. Cella**	VIRGO
18:55	Discussion	
19:05	**E. Coccia**	Bar detectors: Al, Au, Na, Ni, Ex
18:30	Discussion	
19:40	Adjourn	

This Afternoon's Program, Revised; Tuesday, Feb 6 :

Status of Present Detectors Chair: A. Rüdiger

16:31	**A. Rüdiger**	Joe Weber †
16:40	**B. Willke**	GEO 600
16:04	Discussion	
17:13	**M. Barton**	LIGO
17:37	Discussion	
17:46	Coffee break	
18:00	**K. Kuroda**	TAMA 300
18:24	Discussion	
18:33	**G. Cella**	VIRGO
18:57	Discussion	
19:06	**E. Coccia**	Bar detectors: Al, Au, Na, Ni, Ex
18:30	Discussion	
19:39	Adjourn	

Tribute to **Joseph Weber** †

Controversial – **founding father** of GW search

We would not be here if it had not been for Joe

In her nice book *"Einstein's Unfinished Symphony"*,
Marcia Bartusiak writes about his descent:

Weber was born in Paterson, New Jersey, in 1919 and named Jonas Weber. His father was Lithuanian, his mother Latvian. The family name was originally Gerber, but that changed when his father, eager to immigrate to the United States, took the visa of another man who had decided at the last minute to stay in Lithuania. Jonas mistakenly turned into Joseph when his mother first registered him for school. Like many of his generation, Weber became fascinated by radios as an adolescent. He obtained his ham radio operator licence at the age of 11. ...

Weber soon made himself a name in many fields,
scientific and technological (radar, maser)

And almost single-handedly initiated search for GW

Gravitational waves predicted by Einstein in 1916,
but no-one tried to measure them:
signals would be prohibitively small

Weber, in early 1960s, demonstrated how to do it:

Joe Weber, in 1970, with one of his cylinders
suspended on acoustic filters (stacks),
at room temperature, with piezos near center

It is no coincidence that '**Weber bar**' still being used
albeit with many improvements (talk by E. Coccia)

1) cryogenics, partly below 0.1 K
2) improved transducer schemes
3) tuned transducers, broadband
4) future: spherical (talk by M. Cerdonio)

Success story, where is controversial part ?

To say it bluntly :

his signals were not due to gravitational waves

Fortunately !

at rate and strength claimed:
Milky Way would not have survived long enough
for solar system to form,
for life on a planet to develop
. . . or astrophysics back to square 1 ?

The positive side :

claims aroused enormous interest
by theorists and experimentalists alike
(theorists: Kip Thorne, for one)

experimentalists copied his apparatus
Weber very helpful in getting others started

One of groups to benefit: MPQ at Munich / Garching

Joe readily gave advice and assistance

two detectors, largely identical to Weber's

operated in longest room temperature run

Result, disappointing to 'believers':

no events detected

in accordance with astrophysical expectations.

later experiments: similarly negative

Joe Weber **never accepted** these negative results

was rather immune to all arguments

despite evidence from other experiments

He developed 'quantum theory' of interaction

that would give bars higher sensitivity

(by as much as 6 powers of ten !)

immediately repudiated by Kip Thorne

Weber then went on a 'crusade' against alternative schemes:

he publicly suggested to other groups to

stop all research on **interferometers**, and

adopt the 'more sensitive' **resonant bar** scheme

forced others to be even more meticulous in their work

Both techniques healthily survived these perturbations
they are continually becoming more sensitive
will usher in era of gravitational wave astronomy

This **success** would not have been possible without
Weber's **skilful efforts** at sensitive apparatus
but, ironically, also not without
Weber's exaggerated, **'wrong' claims** of GW events
it was these that spurred the great excitement

We owe Joe Weber our gratitude for all this:
his excellent experimental skills,
his charismatic character, and
his crusade in defending his claims

The coming session will demonstrate
that we are fulfilling his legacy, that of
making gravitational wave astronomy come about